Navigating the Practice
An Exploration of Enterprise Risk Management at the Port of London Authority

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Abstract

This thesis explores the intra-organisational dynamics behind the increasingly prevalent adoption of private-sector style enterprise risk management (ERM) practices by public-sector organisations. The core tenets of ERM are predicated on the idea that a diverse range of organisational issues and challenges can be processed and managed through a set of standardised, universal tools and techniques. Neo-institutional theory holds that broad, macro level pressures act upon organisations at a field level creating pressures to adopt homogeneous structures and processes as a means of gaining and maintaining organisational legitimacy. However, outside of the notion of a range of strategic decoupling responses, relatively little research has been undertaken on how different areas of an organisation actually interpret and apply the institutionalised practice of risk management across its functional departments. To that end, this thesis looks at how the Port of London Authority is operationalising a newly adopted risk management policy as it continues to manage societal and organisational risks.

Through the use of 41 semi-structured interviews, document analysis and participant observation, the study explores why and how employees from functionally disparate areas of the organisation utilise risk management practices. The study focuses on the organisational, institutional and cultural dynamics that drive and shape an employee's understanding of what ERM is meant to achieve and how best to go about implementing it. The findings suggest that employees decoupled the ERM practice differentially across the organisation's departments as a means of 'organisational conservatism'. The research presents new knowledge in regards to how the Port of London Authority relied on three distinct 'if-then' logics as a means to decouple ERM from its intended outcome of managing risk across the organisation to one that serves to protect and reinforce existing organisational arrangements and rationalities. This process of organisational conservatism enabled departments to reinforce their identities, increase their organisational standing and substantiate past actions. In essence, the organisation adapted ERM to reinforce and justify existing practices as a means to become more certain about what it already knows, rather than reduce the effects of uncertainty in achieving the organisational objectives.

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Chapter 1 Introduction

1.1 Enterprise Risk Management in the Public Sector

The adoption of explicit risk management frameworks by public sector organisations has seen a considerable increase over the past 25 years (Gephart et al. 2009; Power 2004). This has in part been a response to some significant organisational failures to manage an increasing number of socio-technological risks, such as Chernobyl reactor meltdown, the 2008 financial crisis, or the BP Deep Water Horizon oil spill (Scheytt et al., 2006; Beck 1992). The idea that enterprise-wide risk management, or more commonly referred to as ERM, can actually aid in minimising these types of events has resulted in governments across North America, Australia and the United Kingdom adopt them in a wholesale fashion (Gephart et al. 2009; Kimbrough & Componation 2009; BC 2012; HM Treasury 2004; VAGO 2007). However, in adopting what were once originally designed for the financial sector, these newly implemented approaches to risk management have struggled to balance the interplay between societal or 'primary risks' with those posed to the institution or 'secondary risks' (Rothstein et al., 2006a, Power 2004; Power et al., 2009). Despite the potential negative impacts of the 'risks of risk management', public and private sector organisations continue to seek the institutional legitimacy afforded through the adoption of the 'holistic', 'integrated' or 'enterprise-wide' risk management practices (Soin & Collier 2013).

The need for organisations to identify, assess, and respond to the risks they face is nothing significantly new. It can be argued that organisations have always sought to reduce the likelihood of failure through the application of well-informed strategies, efficient operations, and sound market intelligence. However, what is new, is how organisations have begun to rely on risk management to frame, or re-frame, the potential for organisational failures through the tools, processes and language of risk management (Huber & Rothstein 2013; Maguire & Hardy 2013). In their attempt to increase the robustness of their corporate governance, optimise the allocation of increasingly scarce resources, and provide improved transparency of internal decision-making, public sector organisations are now faced with a new set of challenges that can accompany ERM's adoption.

In general, the goal of ERM is to direct organisational attention to potential failures and subsequently coordinate efforts to control and minimise them in a standardised and repeatable fashion. Typically, this would include "all the processes involved in identifying, assessing and judging risks, assigning ownership, taking actions to mitigate or anticipate them, and monitoring and reviewing progress" (HM Treasury 2004:49). Others suggest the underlying goal of ERM is one that produces an increased understanding of how a wide range of risks unfold and interact across a "portfolio of all activities." (IRM 2002:2). Regardless of wording, the overall objective of ERM is to elicit repetitive, predictable and continuous behaviours aimed at achieving a desired state in which negative outcomes/consequences are minimized, if not eradicated all together. The result of the

effort being the increased likelihood of achieving organisational objectives (i.e. effectiveness), while at the same time reducing the costs associated with failures (i.e. efficiency).

Driven primarily by a flurry of large-scale organisational failures in banking institutions, as well as the private-sector, ERM quickly assumed a key role in how organisations could establish and demonstrate good corporate governance (Power et al, 2009). It is now not uncommon to see risk management as being statutorily mandated, if not at least societally expected. In assuming this pivotal institutionalised role, ERM is now seen to be a central organising principle within public-sector institutions (Power 2007; Huber & Rothstein 2013). The dominant role that ERM plays in how organisations undertake their daily decisions has been seen to result in both the 'risk management of everything' and 'the risk management of nothing (Power 2004; 2009). In one sense, any aspect of organisational life can be calculated as representing some type of risk, making it someone's responsibility to control it. And from another perspective, ERM's audit-logic 'boundary preserving model' reaffirms rather than questions existing ways of operating (Power 2009). Perhaps a symbolic adoption should not be surprising considering the tendency for organisations to decouple practice from policy in their attempts to buffer existing organisational arrangements from the introduction of legitimising managerial models, such as ERM (Meyer & Rowan 1977; Power 2007; Bromley and Powell 2012).

Although a variety of public organisations have acknowledged the need to adopt a 'standardized approach' to managing risk, there also appears to be fundamental issues in translating frameworks that were originally designed for the financial and insurance sectors to a public-sector environment (Power 2004; Schyett et al., 2006; Rothstein et al., 2006). Some note the advent of 'New Public Management' (NPM), in which there is an increased uptake of private-sector practices as a means to increase the efficiency and effectiveness of private institutions, as driving much of the interest in ERM by public organisations (Black, 2005; Hood 1991). However, assessing the dynamic and ambiguous nature of public sector risks can push past the limits of what ERM was intended to do. In a recent study of regulatory organisations seeking to leverage private-sector approaches to managing risk, Black (2005) identified a number of challenges. In speaking to assessing probabilities, the author notes: "Whilst the procedure looks technical and formalistic, the assessments are inevitably made by individuals, and as such prey to individuals' perceptions and evaluations of risk." (Black 2005:533). Others too have noted the methodological obstacles that were encountered by policy makers when it came to assessing risks, stating that it represented more of a 'codification of existing beliefs' that served to further entrench existing understandings rather than presenting any type of challenge function (Rothstein & Downer 2012:789). Further still, the explicit management of risk has been seen to generate unintended consequences in the form explicit audit trails that threaten to uncover hidden lines of accountability and in turn, amplify the salience of blame throughout an organisation (Huber & Rothstein 2013).

Echoing the above, Hood and Rothstein (2000) point out, the pitfalls associated with adopting private sector risk management, such as: exacerbating blame avoidance issues; applying valueless

mechanical procedures; and, undermining organisational transparency and learning. Identifying these issues begins to raise questions concerning the expectations placed on ERM frameworks that are required to address an increasingly complex, uncertain and ambiguous risk arena (Adams, 1995; Klinke & Renn, 2002; Rothstein et al., 2006; Power, 2007). Finally, it suggests that although theoretically ERM can be applied across an organisation, in actuality, the types of risks and actors involved are internally differentiated – leading to a potential degradation of, and deviance from, management system protocols (Hutter 2005; Mikes 2009; Arena et al. 2010; Vaughan, 1999). However, despite these potentially significant hurdles, a variety of public sector organisations across the UK have already, or just beginning to, implement ERM programmes as means to increase transparency and justify decisions in a response to shifting societal expectations. All of the above begins to highlight that although ERM may promise a reduction in the number and severity of future adverse events, it may represent much more of symbolic exercise that achieves much different outcomes than originally intended.

1.1.1 ERM and Port of London Authority

One sector that has seen a substantial shift in what society considers their role is when it comes to managing risk is that of port authorities (Verhoeven 2010). Port Authorities around the world have been undergoing what has been considered a 'renaissance' due to the evolution of the port authority's traditional focus on regulatory and/or landlord activities back to one of being positioned as an innovator and facilitator of entrepreneurial spirit (Verhoeven 2010). Port authorities around the world are under immense pressures from multiple stakeholders, such as key market actors (ship owners, container operators, etc.), government decision-makers, and societal interest groups to develop in ways that maximize functionality and minimize negative externalities (Notteboom & Winkelmans 2001; Cheon et al. 2010; Haugstetter & Cahoon 2010). Balancing the often-competing interests of these influential groups demands precaution and flexibility and requires a port authority to not only take risks but also to be able to live with the consequences. If ports and their associated authorities are to continue to thrive and prosper, port authorities must challenge pre-existing institutionalized patterns of development and foster institutional plasticity (Notteboom et al. 2013).

In meeting the challenges noted above, port governance systems (of which ERM is a significant component) play a critical role in enabling an entrepreneurial and market-oriented transition to take place. With its private sector roots, the institutionally driven practice of ERM would appear to be a process aptly suited to the task, yet the practice of risk management by regulatory organisations has been plagued by a variety of challenges to implementation (OECD 2010; Hutter 2005a). Despite this, one such organisation embarking on this challenge is that of the Port of London Authority (PLA). The PLA is an organisation primarily charged with overseeing navigational safety along the Thames River as well as promoting economic trade and development, leisure activities, and, at the same time, protecting the environment. In addition to this, the PLA is

what is known as a 'trust port' and in being so, is a self-funded entity. As a trust port, the PLA must recoup its operational costs through the fees it levies (conservancy charges, pilotage dues, river works licensing etc.), with any surplus being re-invested into the infrastructure to ensure the organisation remains viable. To that end, like many of its peers and counterparts, the PLA had identified a need to ensure that its scarce resources are applied to the areas that matter most in an efficient, effective, and defensible manner.

Driven primarily at the executive level as a means to increase oversight and governance of the management of risk, the PLA sought to implement a holistic, ERM type approach to managing risk. This meant not only extending existing efforts to manage 'mandate risks', like those associated with navigational safety, but also reconciling existing navigational risk management practices with a more unified and holistic approach. However, feeling that they lacked the current in-house expertise to operationalise an ERM framework, despite years of 'formally' managing navigational risks on the river, the organisation turned to the aid of an external multi-national risk management consultancy to help implement an ERM programme. In addition to this, the organisation was also actively soliciting guidance from King's College's Centre for Risk Management which served as a catalyst for the following research study; one that embedded the researcher directly into the organisations daily life. Gaining this privileged access afforded the researcher the ability to conduct a wide range of targeted interviews, review internal policy documents and risk registers, and personally observe how the PLA was responding to risk in a variety of organisational settings.

Representing a rather 'typical' public-sector ERM adoption scenario, the case of ERM implementation at PLA presents a rich opportunity to explore how and why public-sector organisations respond to ERM and possibly provide answers to important questions such as: How would the different skills, knowledge and cultures respond to the introduction of, what can be, a very intrusive and explicative means to decision-making under uncertainty?; Why might different departments be receptive or resistant to the practice and what can be learned by the underlying logics that shape and guide their responses?; And, how might ERM evolve in the future in order to ease the challenge of implementation and at the same time, avoid the pitfalls associated with its adoption? In answering the above questions, this research furthers the understanding of how the public organisations operationalise, and respond to, an enterprise-wide approach to risk management.

1.2 Research Aims and Goals

The academic exploration of how organisations respond to the institutionalised expectation to manage risk continues to grow. As the review of the literature in chapter 2 demonstrates, there is a high likelihood that public sector organisations adopting private sector models will incur challenges in coupling practice with policy. Outside of a few examples (Arena et al., 2010; Mikes 2009; 2011; Woods 2009), there appears to be a gap in the research that speaks to how the introduction of enterprise risk management frameworks unfolds across the individual and departmental level of

organisations. As such, this research looks to explore the recent introduction of an 'enterprise-wide' risk management programme across a single public-sector organisation. In doing so it asks the following research question:

How and why does the Port of London Authority respond to the introduction of an enterprise-wide approach to managing risk?

In asking the above question, three associated research objectives have been identified:

Goal 1: Describe the Practice

The first goal of this research is to explore and present a nuanced account of how the PLA is operationalising its ERM programme in order to understand if and how the practice of ERM may vary between departments. This goal focuses on describing in detail how the organisation responds to the policies, activities and technologies associated with managing risk across the various organisational settings (Arena et al., 2010). Specifically, it provides insight into how the various departments of the PLA interpret how risk management should happen, how the employees engage with tools, and which risks they consider worth managing. The achievement of this goal will result in a 'painted picture' of how ERM *actually* takes place at the PLA.

Goal 2: Explain the Practice

The second goal of the research study is to illuminate the supporting rationales that drive and shape why ERM is being practiced at the PLA in the way that it is. Specifically, it looks to explain why different departments in the PLA use ERM and what ends they are achieving. It also looks to further understand the intra-departmental and intra-organisational dynamics that unfold as a result of the introduction of the programme. And lastly, goal two seeks to illuminate how the practice ERM relates the PLA's identity and if it influences how the organisation relates to the world around it.

Goal 3: Identify Wider Implications

In achieving goal one and two, the third goal looks to take a step back and situate the findings of the research study in a research wider context. The intent of this goal is to be able to reflect on the study's findings in relation to the current socio-theoretical positions identified in the literature review. Specifically, it answers whether the adoption of ERM by public sector organisations has substantive implications or whether it is more reflective of symbolic legitimacy seeking exercise.

The achievement of the above objectives is intended to provide greater insight into, and understanding of, how public-sector organisations respond to the institutional pressure to expand

their risk management frameworks into enterprise-wide approaches. To date, the literature provides little insight at the micro-level as to how ERM is understood and implemented on a day-to-day basis. In filling this gap, the findings contribute to two main sets of literature. First, the accounting and audit management literature often highlights high-level disconnects between how ERM is designed 'on paper' versus how it is applied in practice (Mikes 2009; Power 2007; Rothstein et al. 2006), but such arguments are rarely based on detailed empirical studies. This study goes beyond the simple idea of decoupling to show how there are hidden costs associated with ERM using the example of how different areas of the PLA are unwittingly editing out key risk information. The rich stories and organisational narratives that currently house the majority of the risk information are re-shaped by the formalised structures of ERM, stripping it of the vital context in which risk objects are understood. Editing these narratives down in order to fit into the constraining structure associated with an ERM risk register spreadsheet removes the vital context in which the risk was first understood. Although initially the mis-match between what staff know how to do and what the register suggests they are doing might not amount to much, when key staff leave the organisation, the tacit knowledge that could have been captured by the process will be lost. Left unchecked, the paper-based accounts will continually shift farther away from reality in turn hampering the PLA's actual ability to manage real risks.

Second, the findings also contribute to debates within organisational sociology and how organisations respond to institutional demands for organisational legitimacy. Well-worn themes within the literature on Neo-institutionalism, such as 'means-end' decoupling (Bromely & Powell 2012), the role of identities in shaping practice (Lok 2010) and the creation of institutional logics (Thorton et al. 2012), are further unpacked in order to highlight how the different areas of the organisation operationalises ERM. In the case of the PLA, the different functional areas of the organisation used the practice of ERM to reinforce and conserve their organisational identities, redirect managerial attention to further their departmental standing, and reconcile pluralistic institutional pressures. As the 'risk society' continues to increasingly rely on the concept of risk and the associated managerial systems that promise reduced uncertainty, increased control, and a greater ability to make the right decision, furthering the academic understanding of how ERM shapes (and is shaped by) organisations, becomes even more important.

Furthering the contribution in both of the above-mentioned sets of literature, the type of data collected and the subsequent analysis of it also constitutes a novel approach. The level of access granted to the researcher and the ability to uncover a variety of risk narratives that were generated by the semi-structured interviews, the review of risk documents, and the observation of risk assessment meetings 'as they happened', resulted in a rich source of empirical data sets. This is significant in that there were no identified studies within the literature review that provided a comprehensive breadth of ERM practices across multiple organizational departments at a micro-level. The data sets were then subjected to an iterative process of narrative analysis that yielded valuable insights into what actually happens at the ground-level when it comes to practicing ERM.

The results of the study suggest the very tools that are designed to identify, assess, and treat risk could actually be undermining the organisation's ability to do so. Up until the introduction of ERM, the PLA simply got on with doing what it had always done and relied upon its professional skill and expertise in order to keep the river safe and economically viable. This new need for explicating ingrained practices and rationales not only takes a lot more time and effort but introduces a substantially increased divide between practice and policy. If things do go wrong, this divide is surely going to be questioned by those wishing to hold the organisation to account, which ironically increases the perceived need of PLA staff to explicitly document their risk management activities.

1.3 Thesis Outline

The content of this thesis is organised as follows: Chapter 2 provides an overview of the relevant literature and theory that guides and focuses the research study. Specifically, it highlights some of the organisational dynamics that shape, and are shaped by, the act of managing risk across public sector organisations. Chapter 3 presents the chosen research design and methods used in the study and also details how the how the data were analysed and interpreted. A review of internal policy and protocol documents, statutory guidance material, and risk registers was undertaken; semi-structured interviews were conducted with PLA employees tasked with ERM responsibilities in order to explore corresponding rationales and strategic responses that constitutes the ERM practice; and lastly, employees engaged in ERM associated activities in the form of internal and external meetings were also observed. Chapter 4 offers a brief history of the PLA, along with its current operating objectives and associated organisational challenges. Chapter 5, 6 and 7 are empirical chapters that focus on the administrative, navigational and operational areas of the organisation respectively. Each chapter explores three 'dimensions' through which the organisational response to risk management is seen to unfold (i.e. functional, cultural and structural dimensions) and explores the substantive and symbolic responses to the introduction of ERM by the different areas. Chapter 8 compares and contrasts the findings of empirical Chapters to explore if ERM actually achieved what it was originally intended for or if it was rebuffed and repurposed by the organisation in order to achieve other objectives. Chapter 9 provides a summary of the research findings, identifies practical implications pertaining to the practice of risk management, and ends with some suggested areas of exploration for future research based on the limitations of this study.

Chapter 2 Literature Review

2.1 Introduction

From a basic standpoint, there is simply a greater chance of success if we all work together. However, organising ourselves as a means to achieve shared goals and objectives does not in of itself reduce the chance of failure, and at times can actually make it more likely that things might go wrong. Conventional wisdom has it that organisations, public and private, exist in order to facilitate the achievement of a desired outcome that, for whatever reason, may not likely be accomplished by the effort of a single individual (McAuley et al. 2007). The likelihood of an event occurring that may influence, positively or negatively, the achievement of this outcome is organisationally conceived of as a risk (IRM 2002). Risk is intrinsically linked to uncertainty and the effect it has on organisational behaviours (Power 2007; ISO 2009). The explicit process of dealing with the risks associated with an organisation's objectives is the remit of a specialised profession and practice known as risk management. Yet how has this relatively straight-forward managerial system of control come to play such a significant role in Anglo-Saxon organisational life? Where did this explicit system of identifying, assessing, and responding to the likelihood and severity of adverse events come from? And, how do organisations respond to such an auditable and calculative process in an increasingly complex and 'unknowable' world? In posing these questions, the following chapter serves to provide insight on the accumulated body of relevant academic literature and in doing so, helps narrow and refine the focus of this research study's objectives.

2.2 The Rise of Enterprise Risk Management

As much as the present-day complex technologies have driven the need to manage risk, the practice of ERM owes its current form to a range of developments across a variety of human geographies. Some have traced its roots as far back as the Ancient Greeks and the Code of Hammurabi's 'eye for an eye' rule; suggesting that someone be held to account in the occurrence of a societally unacceptable failure. Also associated with the Code of Hammurabi, Covello and Mumpower (1985) have linked the current marine insurance industry back to the concept of Bottomry, a type of arrangement where a ship's master would borrow funds as a contingency against any unforeseen troubles the ship may encounter on its voyage and in essence. The rise of the maritime insurance industry provided much of the underpinnings for how risk is managed today. Lloyds of London, or as it started out as 'Mr. Edward Lloyd's Coffee House', was the location of choice for significant players in the maritime industry to gather relevant news and trustworthy information about the world of shipping (Bernstein 1996). With reliable and up-to-date information in hand about the latest developments in ship design, trade routes, and navigational abilities of crews, marine insurers provided policies that could account for the level of risk posed by each combination of factors. These policies represent the transferring of a potential loss from one party to another, representing

a socially organised and coordinated approach to managing (i.e. transferring) risk. This also highlighted the need for specific types of information gathering practices that took the form of assigning probabilities during the analysis of risk, as well as developing a corresponding treatment option based on the evaluated risk, a cornerstone of what now comprises standardised risk management frameworks (ISO 2009).

Transpiring in tandem to the inception of what is now the modern-day insurance industry, a complementary approach to assessing the likelihood and consequence of future events was also evolving. The discipline of the actuarial science is devoted to the calculation of the mathematical probabilities, now heavily utilised by the insurance and finance industries, has been traced back to the development of 'life tables' by Halley in 1683. As statistical information made itself available through better record keeping practices and systemic population censuses, the insurance industry continued to expand its reach by calculating the corresponding probabilities of adverse events (Bernstein 1996). This concept of assessing the likelihood of death allowed for further analysis based on factors such as age, lifestyle and health, demonstrating that the uncertain outcomes could be 'managed' by changing the decisions one made that influenced these factors. This ability to categorise provided a powerful access point for state intervention by identifying and labelling segments of the population as targets for direct policy interventions, or as risks to be managed (Rose and Miller 1992).

As scientists and mathematicians continued to prove the power of numbers in relating the past to the future, the quantitative sciences driving technological advancements have meant much of the associated risk information has also adopted a numerical form. Traditionally, quantitative risk assessments have been primarily represented in three approaches: actuarial; probabilistic; and toxicological (Jaeger et al. 2001). Here, cause and effect event chains are established as the system is reduced to the basic mechanical components of control. Fault tree analyses can then be generated and probabilities assigned to the layers of protection afforded by the mechanical containment barriers. These narrowly focused, realist approaches rely heavily on relative frequencies in order to determine probabilities. These approaches also tend to focus on human or environmental harms and work to objectify risk and remove any socially constructed elements that may compromise a rational understanding of the risks posed to people, property and the environment (Jaeger et al. 2001). Although, as processes, machinery, and science continue to evolve, there is a need to ensure that the existing values, norms and morals of the surrounding society remain aligned and are not compromised by an organisation's intended or unintended negative externalities (Otway & Wynne 1989; Kasperson et al., 2003; Siegrist & Cvetkovich 2000). More often than not, the risks generated by industrial activity are unevenly distributed between those responsible for the hazard and those potentially exposed to its ill effects (Renn 2008; Douglas, 1985). However, as much as all of these developments speak to the concept of risk unfolding on multiple fronts, it wasn't until the latter half of the 20th century when risk really saw its institutionalisation within public sector organisations.

The near exponential growth of technology and the increasing severity of impacts arising from its failure has created what has given rise to what Beck (1992) famously termed the 'Risk Society'. Beck emphasises that the scale and types of risks posed by advancements, like nuclear power plants and nanotechnologies, are inherently ungovernable in comparison to past technologies (e.g. hydroelectricity or coal-fired power plants). The responsibility to address the possible failures of technologies with catastrophic potential falls to that of organisations as they are the primary societal mechanism through which control of risk is sought. However, in their attempt to introduce order, logics and efficiency, organisations can inadvertently increase, rather than minimise, the likelihood of disastrous outcomes. As Perrow (1984) argues, accidents can be viewed as quite a normal outcome that ironically arise from organisations that were purposely designed to avoid them. Perrow's Normal Accident Theory (NAT) posits that as technologies become increasingly complex, the ability of an organisation to monitor and account for exponential number of possible interactions makes failure simply a matter of time rather than design flaw. However, complexity alone does not automatically lead to a disastrous outcome, it is when these complex technologies exist within tightly coupled systems that small failures can quickly 'snowball' out of control. Loosely coupled systems or organisations can isolate these failures and limit the extent of any domino effects by a lack of direct linkages between operations.

Others have noted a similar, yet distinct, notion of inevitable failure, described as 'epistemic accidents' (Downer 2011). These types of accidents are defined as "those accidents that occur because a scientific or technological assumption proves to be erroneous, even though there were reasonable and logical reasons to hold that assumption before (although not after) the event" (Downer 2011:752). Although also unpredictable, like those associated with NAT, these failures tend to arise out new and innovative systems rather than complexity. A lack of prior knowledge and experience, along with the inherent limitations of engineering knowledge, is described to be the drivers behind these accidents. However, unlike the NAT's 'one-in-a-million' one-off failures, Downer (2011) suggests that epistemic accidents can offer valuable learnings for future risk-reduction efforts.

Others still, claim that it is the inability to recognise system weakness in advance of a catastrophic outcome that is actually at the root of disasters, attributing ultimate causation to human error. Broadly speaking, disaster theorists contend that large scale technological failures are result of an organisation's inattention to a series of warning signals. One such characterisation of organisational actors either being unaware or tolerant of error inducing activities is that of 'normalised deviance' (Vaughan 1996). The author chronicles the intra-organisational cultural dynamics that ultimately led to the 1986 Challenger space shuttle disaster. Here, Vaughan details how a decision-making process in which engineers rationalised small failures as being insignificant and anomalous actually worked to normalise key signals of danger into 'acceptable risk'. In doing so, the engineers at NASA slowly built up a tolerance to minor glitches and process anomalies. After each successful flight, a new standard was set for acceptable risks, a process which in turn

permeated other areas of the organisation and became a cultural norm. This culminated in the decision to launch the shuttle despite a 'normalised engineering risk' regarding the integrity of the infamous O-ring, which ultimately lead to the catastrophic failure of the booster rocket. The ability of these small errors to fester and germinate over time eventually leads to an inevitable loss of control that the organisation has little ability to recover from (Turner 1976; 1978).

The ability of organisational actors, norms and structures to filter and reinterpret possible modes of failures is something that risk management was specifically designed to address. The extensive time and effort it takes to identify, analyse, evaluate, treat and monitor the potentially devastating risks arising from the complex technologies is understandably worthwhile. However, it could be argued that nearly all organisations are now required to devote an almost disproportionate amount of time to formally managing risk, regardless of the industry or sector. Although the growing obsession with risk management could be attributed to the increasing prevalence of complex technology, it was failures of a financial origin that served to really propel ERM into the public-sector limelight. The following sub-section now explores the rise of enterprise risk management and its near mandatory existence within public organisations wishing to be viewed as legitimate and just.

2.2.1 Corporate Governance and the Introduction of ERM

Although many of the catastrophic failures that were grabbing the news headlines were often associated with technological failures, private-sector organisations have garnered a significant amount of attention for the failure to govern themselves appropriately. Much of ERM's prominence can be traced back to the need for corporate governance systems that work to ensure that shareholder value is protected, investors realise a return on their investments, and that these are achieved in socially acceptable manner (Letza et al., 2008). The increased need for some type of corporate oversight system was made salient through a series of significant organisational failures and scandals that came to light through the end of the 20th century and into the early years of the present century.

Within the UK, the occurrence of a series of large-scale corporate failures led to a string of committees being struck with corresponding reports being issued that provided recommendations on how to improve executive accountability through the voluntary adherence to codes of best practice. The first of these, the 1992 Cadbury Report, was in response to a host of major financial institutions failures, such as the Bank of Credit and Commerce International, and spoke to the need to ensure accountability and transparency at the executive level of an organisation. A significant result of this report was the development of the Cadbury Code, which set out explicit guidance on corporate accounting and governance arrangements. Following on the heels of the Cadbury Code, the release of the Greenbury Report in 1995 was a reaction to disproportionate discrepancies between executive salaries and company earnings, stressing "…accountability, responsibility, full disclosure, alignment of director and shareholder interests, and improved company performance."

(Elliot et al., 2000:49). Further still in 1998, the Hampel report assumed a more proactive stance and sought to advance the guidance on corporate governance by merging the recommendations of the Cadbury and Greenbury reports into the 'Combined Code' and explicitly broadened the corporate governance remit to include both internal control and risk management. However, it is the Turnbull Report released in 1999 that is largely acknowledged as an evolutionary step in contemporary corporate governance practices. The recommendations contained within the Turnbull Report provided 'official' guidance to company's director(s) on the obligations to the Combined Code, or as it more commonly referred to now, the UK Corporate Governance Code. In addition to this, the adherence to the UK Corporate Governance Code, was also transitioned from being a voluntary undertaking, to being a mandated compliance requirement for any UK listed company. A demand that has actually be seen to produce a perverse effect of companies actually de-listing in order to reduce the burden of compliance (Power 2007).

Much like the UK, similar developments pertaining to corporate governance were transpiring in North America over the same time period. The USA's Committee of Sponsoring Organisations (COSO) of the Treadway Commission and Canada's Criteria of Control Board (CoCo) represent 'official' state responses to the major failings and financial scandals in the corporate sector at the turn of the 21st century. In 1992, the COSO document 'Internal Control - Integrated Framework' was published and was the result of an independent study (the Treadway Commission) that focused on the causes of fraudulent financial reporting. This document heavily influenced the above-mentioned UK's Turnbull report, and focused on audits of financial, regulatory and operational aspects of a private organisation's proceedings. It also represented the first time that an expectation that control design be linked to some type of explicit risk assessment process. In 1995, CoCo released its guidance document that echoed the COSO approach but further expanded the remit of internal controls to encompass all operational areas of an enterprise (Power 2007). Although both COSO and CoCo have specific aspects impacting the current concept of risk management regarding their respective nations, the collective importance of these documents is that they legitimized the concept of internal control transitioning from one concentrated on financial aspects of the business to one focused on corporate 'enterprise-wide' system of risk management and governance (Arena et al. 2010; Mikes 2009; Power 2007).

However, although this flurry of newly released guidance documents was beginning to elevate the role of risk management within organisation, further pressures were still required to push ERM up through the ranks of managerial practices. This further pressure to manage risks to an organisation's strategic objectives has been seen to originate from the rise of quality assurance standards and models (Power 1997). ISO 9000 is comprised of a set of quality assurance standards that was produced by the International Standards Organisation (ISO). Originally introduced in 1987, ISO 9000 is a standards document that outlines seven 'quality management principles' and is focused on documenting a 'plan, do, check' model of organisational processes. The focus here again is on the now well-worn theme of internal controls and the achievement of an organisation's

strategic objectives. It is these types quality assurance templates that are seen to have led to the creation of similar standards documents for risk management standards, the first of which being generated jointly by New Zealand and Australia with the UK, Canada and Japan soon following suit (Power 2004). Recently in 2009, ISO 31 000 was introduced a 'generic' risk management standard, that is applicable to private and public organisations alike (See section 2.2.2 for further detail).

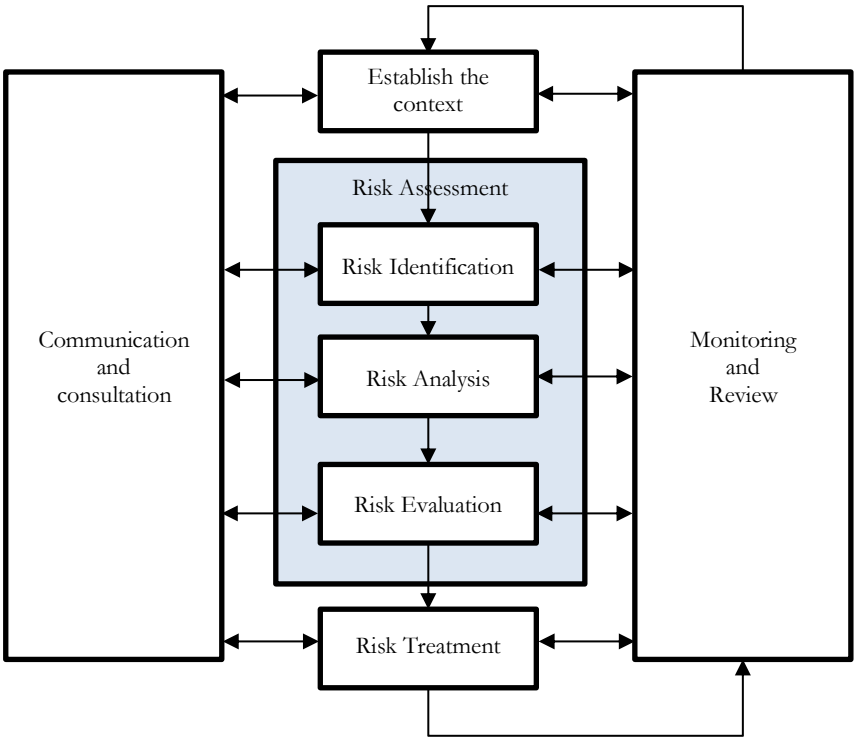
With all of these normative standards, mandated requirements, and societal expectations in place, ERM has achieved a solidified role of representing an institutionally legitimatising element for a private organisation. However, public organisations are not subject to the same need to assure stakeholder values and interests remain protected from nefarious or poor quality corporate actions. Yet, public organisations now find themselves feverishly taking up the practice of ERM. Two identified pressures that saw a shift in uptake of ERM in public organisations was that of New Public Management (NPM) as well as ERM serving as a mechanism to discipline public organisation malfeasances (Power 1997; Hood & Rothstein 2000). NPM represents a paradigmatic shift that took place in North America and the UK at the end of the 20th century. Representing a departure from the previous 'command and control' paradigm of government administration, this new approach to public administration merged the key tenets of new institutional economics (transparency, user choice, contestability) with that of professionalized managerialism that encouraged business-type cultures and performance measurement to drive reform (Hood 1991). In this paradigm, ensuring corporate governance oversight is in place and the risks to achieving strategic public-value based goals are managed, becomes achievable by the same tools as the private sector (i.e. ERM). Yet, just what is ERM and is how suitable is this inwardly focused 'private-sector practice' in an organisation that is primarily concerned with influencing conditions and behaviours far outside of its organisational walls? The following sections will now expand on the technical components of an ERM type approach to risk management and also some of the identified challenges in operationalising it with private and public organisations.

2.2.2 What is ERM?

Enterprise risk management is broadly an umbrella term for a range of risk management practices rather than any one specific 'way' of managing risk (Power 2004). Whether they are called 'holistic', 'integrated' or 'enterprise-wide', all of these systems really speak to the systematic effort to manage risk by all areas of an organisation, rather than being associated with a specific function or area, such as engineering or the finance department. Basically, ERM is an organisational management system that encourages a rationalised allocation of resources applied in the form of controls that work to avoid future adversity and protect the object of value (Holt 2004). To achieve its ends, the management system relies on a set of smaller on-going routines and processes, represented by steps or tasks such as risk analysis, system monitoring, or evaluating risk treatment options (ISO 2009). This concept derives largely from the multidisciplinary world of cybernetics which is a field interested in understanding the machine-like interaction of natural and/or man-made systems

working to regulate the transition from a current state to that of a desired state (Ashby 1957, Umpleby & Dent 1999). The subfield of management cybernetics applies the fundamentals of cybernetics to that of institutions and organisations in an attempt to increase their effectiveness. In relating cybernetics to the risk management processes outlined in the contemporary guidance material, the linkages become easy to see. The system is simple and cyclical, with a continual feedback and monitoring system to ensure not only accuracy but also optimal system performance as depicted in Figure 2.1 below.

Figure 2.1: Risk Management Process adapted from ISO 31000.



The overall intent of these types of frameworks is to coordinate efforts across the organisation in a consistent manner and to ultimately become a taken-for-granted way of doing business. The International Standards Organisation defines risk management as "coordinated activities to direct and control an organisation with regard to risk" and a risk management framework as "[a] set of components that provide the foundations and organisational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organisation" (ISO 2009:2). The HM Treasury's Orange Book defines it as "all the processes involved in identifying, assessing and judging risks, assigning ownership, taking actions to mitigate or anticipate them, and monitoring and reviewing progress" (HM Treasury 2004:49). Finally, the Institute of Risk Management defines it as "…the process whereby organisations methodically address the risks attaching to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities." (IRM 2002:2). In essence, the objective of these

processes is to elicit repetitive, predictable and continuous behaviours aimed at achieving a desired state in which negative outcomes/consequences are minimized, if not eradicated all together. The value of which being a process that "… contributes to the demonstrable achievement of objectives and improvement of performance in, for example, human health and safety, security, legal and regulatory compliance, public acceptance, environmental protection, product quality, project management, efficiency in operations, governance and reputation" (ISO 2009:7).

As much as the above presents a generic and 'one-size' conception of risk management, styles of risk management have been identified (Smallman 1996). The 1992 Royal Society report on risk management characterised approaches to risk management as either subscribing to a 'reactive' or 'proactive' paradigm. Smallman (1996) describes a reactive approach as rely on the setting of predetermined thresholds, of which an assessed risk is not to exceed. The operating environment is then monitored with thresholds being adjusted based on evolving actuarial models. On the other hand, proactive approaches are more in line with ERM type systems and rely on decision-making rules over that of trying to model risks that have limited amounts of actuarial data. In this approach, the emphasis is on preventing, avoiding and reducing risk.

Lying at the heart of the risk management framework, and evidenced by the ISO figure above, is the process of risk assessment. Perhaps one of the most contentious aspects of the aspect of the framework, risk assessment includes the identification, analysis and evaluation of risks. Laden with potential pitfalls relating to exclusionary tactics, biases and data quality issues that will be touched upon in the section to follow, risk assessments are relied upon to capture and articulate an organisation's understanding of which risks it feels are worth actively managing. It is here where the calculative property of 'consequence x likelihood' provides a representative metric of what the risk 'actually' is. Most often, these risk assessments are recorded through the use of excel spreadsheet types registers, in which lines items contain the descriptions, scores, owners and associated controls of a specific risk (IRM 2010). The intent is then to use this register as a monitoring tool that can be referred back to as risks are either treated, terminated, tolerated or transferred (ISO 2009).

Each of the steps or phases that are outlined in the various guidance documents present the risk management process as being a relatively straight-forward and rational exercise in which decisions about what is a risk, how important it is, and what should be done about it, are made in a logical and pragmatic manner. However, there is a large, and continually growing, set of literatures that question how rational and straight-forward this process is. The following section will now present some of the research that speaks to the challenges and issues that can accompany the adoption and practice of explicit risk management frameworks.

2.3 Challenges of Operationalising ERM

Before an organisation can begin to manage a risk, it first has to identify something as being a risk that is worthy of their time and effort. In acknowledging this, the challenge for any ERM programme becomes the simple fact that people, and even more so groups of people, quite often

perceive risks very differently. As much as the guidance material on risk management would like to position the risk assessment process as one that can be mechanically applied uniformly across often disparate organisational departments, there is a long and well-established literature that suggests this may be far from what actually transpires. Couple this with the fact that the subsequent decisions that result from perceiving, or better yet assessing risk, can also be subject to a variety of cognitive and social filters, the likelihood of any 'objective' portrayal of what constitutes a risk seems quite rare, if not impossible. The following section brings to light some of the cognitive, social and cultural factors that present a considerable challenge to organisations seeking to generate a coherent and defensible assessment of the risks they should spend time managing.

2.3.1 Perceiving Risks in Organisations

In seeking to understand how an organisation comes to interpret something as a risk to be managed, two streams of research have emerged - those of a natural science realist perspective and one emerging from more of a social science constructionist perspective (Jasanoff 1998; Maguire & Hardy 2013). A realist approach to risk assumes that risk is waiting to be discovered 'out there' and as such, is amenable to objective measurement. Probabilities, frequencies and dose response curves work to generate technical analyses of quantifiable relationships between observable events (Renn 2008). Although well suited for situations where actuarial data on past failures is readily available, realist approaches to managing risk have been criticised for not fully accounting for risk's socially constructed nature (Pidgeon et al., 1992; Maguire & Hardy 2013; Wynne 1992). Hilgartner (1992) describes a process of risk construction in which actors seek to construct risk objects (linking harm with an object), and in doing so can either 'emplace' or 'displace' them within socio-technical networks as a means to amplify or attenuate their significance respectively. Boholm and Corvellec (2010) further this notion through a 'relational' theory of risk. This perspective heavily emphasises the socially constructed and relativistic nature of a risk. This approach attempts to shift the focus of risk being a driven by intrinsic and observable properties, to one focused on the more cultural and narrative dimensions risk. In doing so, Boholm and Corvellec (2010) acknowledge the culturally situated aspect of value and how this fluctuates depending on how an individual or group is oriented towards the risk relationship. The authors posit that a relational theory of risk "explains that risk is an epistemic construct that serves to categorize external objects in relation to other objects depending on what we know and believe regarding the contingent character of the potentially harmful causal relationships involved." (Boholm & Corvellec 2010:182). And lastly, the relational risk theory highlights what Luhmann (1993) notes regafding how the identification of risk makes the observer aware of danger and thus introduces the need to make a decision in regards to what to do about the risk. Luhmann goes on to suggests that it is through the narratives and language of risk that humans come to terms with 'untameable' futures and in order to progress and govern our lives, risk provides a rationalisation of what is, and is not, controllable.

As the need to make decisions is encountered in every step of the ISO risk management framework, it is unsurprising that considerable scholarly attention has been paid to how individuals make decisions related to risk. Cognitive psychology and behaviour decision sciences have long since demonstrated that people use 'mental shortcuts', known as heuristics, to make decisions under conditions of uncertainty (Tversky & Kahneman, 1981; Kahneman 2002, 2011). A related group of studies meanwhile examined the impact of social interactions on individuals' risk perception (Fischhoff, 1995). These interactions inform public conceptions of risk and what is an appropriate level of concern about it, such as when considering "How safe is safe enough?" in relation to new technologies (Fischhoff et al.,1978). Within the past 20 years, decision theory has also been directly informed by advances in the understanding of human cognitive processes – modelling effects such as sense- making (Weick, 1995), bounded rationality (Gigerenzer, 2002), and affect (Slovic et al., 2004; Slovic & Peters 2006). Although the application of heuristics is viewed as a means to expedite a decision-making process has been seen to come at the cost of accuracy (Kahneman 2011), others have noted that the application of heuristics, in regards to make decisions under uncertainty, have found this trade-off to be marginal or even at times non-existent (Mousavi & Gigerenzer 2014). The application of heuristics and 'professional judgement' over the more rigorous and explicit ERM processes is important when it comes down to assessing transaction costs.

Expanding on the impacts of heuristics and biases, a 'negativity bias' was seen to pervade decision making in a UK government department. The fear of being held accountable for a highly visible and news-worthy failure lead to the tendency to "amplify the perception of highly-visible 'short-term/high-frequency' risks and attenuate the perception of 'long-term/low-frequency' risks, which were inevitably less visible" (Rothstein & Downer 2012:793). This fear of being 'left holding the bag' meant that officials would focus on making decisions that would protect short-term reputation over that of societally-focused environmental risks. The nature of risk management to connect harm with value through explicit documented assessments opens up a great potential for biases going unaccounted for. For example, semi-quantitative risk assessments could easily be shaped by assessor's prior knowledge of the hazard (familiarity bias) or recent high-profile. This makes what an individual has been exposed to in the past, a significant element in how they will respond to risk in the future. However, as much as observed events comprise much of these past experiences, the culture(s) to which an individual has been exposed to, and subscribes to, also plays a significant role in perceiving risks.

2.3.2 Cultural Factors Influencing Risk Perceptions in Organisations

The link between culture and how society responds to risks has been well-documented. Often positioned as a counterpart to that of psychological and cognitive research exploring how risk is perceived, Cultural Theory was developed in an attempt to acknowledge the role social structures and constraints play in shaping how risks can be perceived. Seen more as 'cultural biases',

individuals are seen to rely on their underlying worldviews, basic values and assumptions in deciding on what constitutes a risk and how big that risk might be (Dake 1992; Boholm 2009; Douglas & Wildavsky 1982). Units of society are then seen to subscribe to a 'grid-group' typology in which they can be positioned with one of four quadrants: individualism, egalitarian, hierarchical or fatalism. Depending on where within each quadrant the social unit falls, their corresponding cultural outlooks will bias, filter and shape their understanding of risk (Rippl 2002). For organisations attempting to make sense of the risks they face, acknowledging the cultural influence on differing opinions of what is valued, in addition to that of what poses a threat, presents significant implications for risk analysis and assessment techniques (Corvellec 2010; Horlick-Jones 1998). From a cultural standpoint, our organisational identities and beliefs shape who we think we are and influence how we enact and how we interpret scenarios involving risk (Douglas 1992; Lupton 1999). However, when it comes to shaping how organisations identify, analyse and respond to risk, there have been other equally powerful forces identified by organisational theorists that are expanded on in section 2.4.

Organisational culture is seen as myriad of complex dynamic systems (Hatch 1993), which form one of the most influential forms of behavioural control seen within an organisational setting (Schein 2004). Culture is the product of negotiated and shared symbols and meanings; it emerges from social interaction (Meek 1988). The underlying goal of organisational-wide risk management systems is to be 'embedded' as an organisation's dominant culture that "… involves an environment that can demonstrate leadership from senior management, involvement of staff at all levels, a culture of learning from experience, appropriate accountability for actions (without automatic blame) and good communication on risk issues" (IRM 2002). Although the integration with existing practices may be a means to increase the effectiveness of risk management in organisations, it has been well-established that organisations often seek to preserve organisational structures and cultural arrangements when pressured to adopt institutionalised practices (Meyer & Rowan 1977).

Risk management frameworks can be thought of as organisational routines, that are "recurring patterns of behaviour of multiple organisational members involved in performing organisational tasks" (Feldman & Rafaeli 2002:301). Risk management represents an explicit system of organisational routines or patterns that if not carefully aligned, may compete and contradict with other ingrained organisational arrangements and cultural values (Meek 1988; Lupton 1999; ISO 2009). These patterns can take the form of both action-oriented behaviours, as well as well as cognitive regularities, that relate back to psychological risk perception research around 'rules of thumb' - ie. if {condition A} then {do B} (Becker, 2004). These types of cognitive-based perceptions also have a powerful role in coordinating collective activities (March & Olsen 1989) and as Stene (1940:1129) posits, the "coordination of activities within an organisation tends to vary directly with the degree to which essential and recurring functions have become part of the organisational routine". From this, we can begin to see how the repeatable institutionalised routines

and the rationales that comprise risk management could compete with an organisation's existing embedded cultural routines. The cybernetic aspects of 'step-by-step' mechanistic risk management framework could easily clash with more dynamically organic, pre-existing risk management techniques. Each of these routines thus act as powerful conduits to reinforce underlying beliefs and assumptions about what is valued and what poses a risk to that value (DiMaggio & Powell 1991; Schein 2004).

In speaking specifically to pre-existing cultural preferences influencing risk management, Power (2003) and Mikes (2009) highlight the cultural dimensions of managing risk in observing how risk practitioners approach measuring and management activities from either a calculative pragmatic or calculative idealist standpoint. Power (2003) suggests that a pragmatic approach is favoured in environments that require identification of risks that test the limits for formal knowledge with idealistic applications being reserved for situations requiring true economic representations based on high quality frequency data. Mikes (2009) posits that the actual practice of risk management has senior officers often moving past the quantified risk estimates and claim that they have access to a realm of unquantifiable risk issues that defy traditional assessment techniques. The author goes on to argue the benefit of relying on more subjective, participatory and interactive means of risk assessment as opposed to diagnostic measures allows "… various organisational actors [to become] aware of emergent risks, and thereby shape both high-level discretionary decisions and emergent strategies" (Mikes 2009: 21).

2.3.3 Technical Aspects of ERM Interacting with Organisation Arrangements

As much as individual cognition or cultural perspectives can influence how risks are responded to by organisations, the tools associated with the process have been seen to play a role in influence the process. The risk assessment phase in ERM frameworks commonly contain three distinct steps in which risks are: identified; analysed; and, then evaluated. Tools such as risk registers are often used to capture the identified risks and once populated, the risk registers then allow for some type of qualitative or quantitative analysis of the risk to take place in order to gain an understanding of its severity in relation to the other risks being managed. Cox (2008) expands on the role of interpreting risk tools with an analysis of how organisations use risk matrices to measure and communicate different types of risk. This research focused on the reliance on risk matrices that comprise frequency and severity ratings that correspond to priority levels. The findings exposed limitations in the ability of these risk matrices to: provide risk-risk comparisons; effectively allocate resources for risk-reducing countermeasures; compensate for subjectively ambiguous inputs/outputs; and finally, address errors resulting from negatively correlated frequencies and severities. Although the skill of those individuals using the matrices is always a factor, these findings stress the importance that although the technologies associated with risk management frameworks can aid in communicating and calculating risk, their products should not be accepted as absolute.

Further speaking to how risk is 'technically' assessed, it has been demonstrated that management responds to risk differently than what has been portrayed by traditional decision-making theory and that although managers acknowledge the importance of quantified risk assessments and decision trees, the ultimate decision usually comes down to a subjective 'gut-feel' about what is the 'right' course of action (Riabacke 2006). Here, although the uncertainty of an outcome is a factor, the magnitude of an adverse outcome appears to dominate the decision-making process; emphasizing the protection of that which is valued over the lack of information about probability (MacCrimmon & Werhung 1986). However, much of ERM's strength comes from its ability to produce some type of tangible or observable impact on strategic objectives. In specifically viewing the utilization of 'strategic risk management' principles, a lack of quantifiable evidence shifts efforts from 'show me' to 'convince me' and the organisation's risk managers are then seen to redirect where an organisation focuses its attention in trying to balance competing agendas (Mikes 2005; 2009; Collier & Woods 2012). The significance of these findings is not that managers lack confidence in technically executing explicit risk management practices or that aversion/attenuation is driven by a dominating factor but rather for them, but that risk is managed through a variety of skills and processes that blend into an overall response to risk that is seldom removed from the context in which it arises. Practising risk management is therefore a combination of formal (i.e. technical) and informal activities.

Even the different types of risks being managed can influence how organisations have been seen to pay attention to and respond to risk. For example, Rothstein et al (2006) identify how an organisation faced with managing risks to society and risks to the organisation can generate a spiralling feedback loop where institutional 'colonized' risks dominate the decision-making process In exploring the popularity of risk as a means to construct objects of regulatory management, the authors argue that regulatory organisations charged with managing societal risks become consumed by the reflexive aspect of risk governance and that " *'risk colonization' can have a spiraling tendency where mismatches between the management of societal and institutional risk drive regulators to ever further activity*" (Ibid:93). Increasing demands for greater transparency of decision-making leads these organisations to rationalise and explicate their actions through the language, tools and techniques of risk management. In treating the negative externalities of the regulated parties as explicit and calculable risk, it in turn can create risks to the institution itself through the failure to account for potential legal, operational or reputational impacts. The authors suggest that this *"…greater concentration on institutional risk can sensitize regulators to different dimensions of, and even new, societal risks for which they could be held accountable*" (Ibid: 103). Balancing the need to both reduce risks to society through efficient and effective regulatory interventions and at the same time ensure that any newly introduced or increased risks to the institution remain under control is certainly a consideration for any organisation expanding (i.e. colonising) the departments through the introduction of an enterprise-wide risk framework.

The above literature begins to show that although the intention of introducing an enterprise wide approach to managing risk may seek to "methodically address the risks attaching to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities." (IRM 2002:2), there is a considerable number of cultural, cognitive, structural and functional factors that influence the overall outcome. In addition to the challenges outlined in the previous section, even larger forces have been noted when it comes to shaping the adoption and practice of institutionalised managerial systems like ERM. The following section now explores some of these broader dimensions in the review of the literature pertaining to Neo-Institutional analyses of organisations.

2.4 Understanding Organisations: A Neo-Institutionalist Perspective

Practices like ERM can become a required skill or element for organisations to be able to demonstrate if they wish to continue to be viewed as being a legitimate entity. This idea of organisation being influenced by the specific practices, structures, roles or functions of organisations is much the focus of what is known as Neo-Institutional Theory. According to Jepperson (1991), "Institutions are socially constructed, routine-reproduced, program or rule systems. They operate as relative fixtures of constraining environments and are accompanied by taken-for-granted accounts". Like any organisation, the structure of the PLA is subject to a variety of influential systems and pressures that arise from the environment in which it operates (DiMaggio and Powell 1991). Many theories and analytical tools have been developed from political, economic and sociological perspectives, which seek to explain the driving institutional forces that influence organisations (DiMaggio & Powell 1983; Meyer & Rowan 1977). Traditionally, most organisational theory has focused on the political and economic pressures that shape organisational structure. Economic and political based approaches to organisational analysis often represent organisations as a collection of individual actors driven by agency; effectively accomplishing objectives for the lowest cost possible (Hutter 2005). They tend to view organisational design as a product of a rational, individual cognitive decision-making process that is primarily based on utility. Where Neo-Intuitionalism begins to differ is it identifies the influences that the taken-for-granted social values, rules and shared understandings (i.e. institutions) can have on organisational structure and behaviours (Meyer & Rowan 1977). From this viewpoint, the organisation then becomes not only a product of the environment but a reflection of it as well.

2.4.1 Neo-Institutional Pressures and Organisational Legitimacy

Institutional forces have been described, in an organisational setting, as powerful myths that manifest themselves in programs, professions and technology (Meyer & Rowan 1977; DiMaggio & Powell 1983). These elements begin to represent more than the sum of their parts and as such, are less likely to be questioned due to what they represent rather than what they physically are. Doctors represent wellbeing, health, and medicine and the profession is legitimized by educational systems

and Hippocratic oaths. Accounting departments establish organisational credibility, commitments to good governance, and responsibility, making them more than just a number-crunching administrative process driven by efficiency. The more myths an organisation is exposed to and subsequently adopt, the more complex the organisation becomes in order to be seen as legitimate; legitimacy being a prerequisite for organisational survival (Meyer & Rowan 1977; DiMaggio & Powell 1983). If an organisation can represent what is known to be good and right in the world, then the products and services it provides are justified. This need for legitimacy is the driving force behind why so many organisations adopt such homogenous compositions, an effect known as organisational isomorphism – a classic example being the adoption of explicit risk management practices, technologies and rationales.

In their 1983 article focused on institutional isomorphism and collective rationality, DiMaggio and Powell categorize an organisation's tendency to structure themselves homogeneously by three separate types of isomorphic processes. The first is due to coercive political type pressures that stem from a need to establish organisational legitimacy in the eyes of an organisation's stakeholders. A relevant example can be seen in the mandated requirements to adopt the corporate governance codes noted at the beginning of this chapter. The second is mimetic in nature and is in response to perceived ambiguities that accompany the unknowns of an organisation's future. In this, the sheer number of organisations now practising ERM engenders a feeling of 'being different' and subsequently lacking what others have been able to achieve. The third and final type of pressure is normative and results from the professionalization of organisational roles and processes (DiMaggio & Powell 1983, Zucker, 1987). In this sense, risk management and its promise to reduce failure and negative impacts is simply viewed as the right thing to do. However, succumbing to these institutional pressures can come with considerable costs. What does an organisation stand to gain outside of complying with external expectations and norms? This brings us to the role of organisational legitimacy and what society sees as constituting the appropriate behaviours, structures and operations that should be demonstrated by an organisation that wishes to remain in good standing.

The survival of any organisation is highly dependent on its ability to establish a legitimate standing within the evaluative eyes of the society in which it operates (Meyer & Rowan 1977; Ruef & Scott 1998). The concept of legitimacy has been identified as an increasingly important anchor in organisational analysis (Meyer & Rowan 1977; DiMaggio & Powell 1991; Suchman 1995; Deephouse & Suchman 2008). As with any emerging fields of study, how a key concept is defined becomes of increasing debate. Legitimacy is largely bi-dimensional in that it can be viewed as a category of expressed cognitive organisational behaviour(s) and as a socio-political analytical lens. As described by Aldrich and Fiol (1994:645) legitimacy is "in one sense relating to how taken for granted a new form is and in the other to which a new form conforms to recognized principles or accepted rules and standards"; the former speaking to the cognitive aspects and the latter socio-political. For the purposes of this research, legitimacy will be defined as "a generalized perception

or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman 1995:574).

In further delineating its composition, Suchman identifies three types of legitimacy, the first of which being what he terms pragmatic legitimacy. This type of legitimacy is focused on the relationship between the organisation and its immediate audiences, and the direct exchanges between them. If a policy benefits the stakeholder then support for the organisation will be garnered. This can be further enhanced by incorporating stakeholders either directly into is decision-making or adopts external performance standards. Lastly, it can also be represented by the personification of organisations (Suchman 1995). This is done in order to attribute a trustworthy characteristic upon them (Aldrich & Fiol 1994; Suchman 1995). Programs focused on stakeholder engagement that invite external audiences into the organisational processes (workshops, roundtable discussion, etc.) not only address concerns about what goes on behind closed doors but offers the opportunity for evaluators to impart their values into the organisation's decisions (Suchman 1995; Power 2007).

A second type of legitimacy is that of moral legitimacy. Here, evaluation is based on whether or not the goals, objectives and/or processes of an organisation are deemed morally acceptable by society (Suchman 1995). As opposed to pragmatic legitimacy, moral legitimacy places the emphasis on the 'social goodness' rather than a direct benefit. Is the organisation doing the 'right thing' or is it acting in a manner that contradicts societal values? The concept of corporate social responsibility (CSR) is an excellent example of attempts to gain and maintain moral legitimacy. CSR focuses on the moral conduct of an organisation and specifically, the mechanisms and results of external ethical evaluations of corporate conduct. As stated by Power (2007: 133), "CSR now seems to take as its object the entire ethical character of the organisation and its governance". Moral legitimacy holds advantages in times when a technical failure can be compensated by the fact that the organisation took higher ground and stuck to what the right thing to do was. An example of this type of legitimacy is Tylenol's response to the tampering of its product and subsequent death in the United States in 1982. By setting aside any logistical or economic issues the company simply did the 'right thing to do'; Tylenol recalled every bottle (estimated to be 31 million bottles) and replaced them at a cost of over $100 million – a cost that does not reflect subsequent changes to manufacturing processes and law suits (Shrivastava et al., 1988). This, at the time, novel response to a direct threat to the company's legitimacy represents a significant elevation of the moral 'benchmark' that redefined what constituted an acceptable and legitimate response for multiple industries going forward.

Lastly is the concept of cognitive legitimacy. Here, legitimacy is viewed as "the mere acceptance of an organisation as necessary or inevitable based on some taken-for-grantedness" (Suchman 1995:582). From this cognitive perspective, the organisation becomes tightly intertwined with the social fabric to the point that life cannot be imagined without it. Achieving this status for a single organisation is possibly less likely than if it is attributed to an organisational field, like that of

policing or that of the field of medicine. This begins to highlight another bi-dimensional aspect of all three types of legitimacy. The measure of legitimacy can be taken by assessing the actions of an organisation (does it act appropriately) and that of the essence of the organisation (is the organisation itself appropriate given the social context) (Suchman 1995). As such, organisational fields may have great cognitive legitimacy given that one could not imagine life without a dedicated organisation that enforces regulations but this still leaves a lot to be said of the importance of *how* the agents conduct their business.

Being able to demonstrate legitimacy is of growing concern as issues of organisational transparency continue to arise. The need to maintain transparency of internal operations has been closely linked to the perceived legitimacy of an organisation (Deephouse & Carter 2005). Its influence is characterized by organisations generating an auditable trail of evidence-based decision-making that a robust risk management process can generate (Power 1997; 2004; 2007; Renn 2008; Rothstein et al, 2006; Hutter 2005). In a sense, the level of transparency demonstrated by an organisation is linked to the effort (or lack thereof) applied to achieving/preserving pragmatic, moral and cognitive legitimacy. In this sense, risk management in public organisations "may have less to do with the substance of assessment techniques and is more part of the management of legitimacy and political reputation" (Power et al. 2009:310). Much like how audit increases the level of organisational transparency, the forensic nature of risk management practices has heightened the salience of blame and accountability within 'exposed' organisations (Hutter 2005, Power 2007, Douglas 1992). The risk of blame does not solely lie outside of the organisation and can also be driven by internal politics and reputations (Hutter 2005; Horlick-Jones 2005). In a review of a medium-sized NHS District General Hospital in the English Midlands, Warring (2005:1930) interviewed a mixture of medical and managerial staff to find that internal blame "stemmed from the occupational or internal aspects of medical practice where it was felt that increased openness about individual competence could lead to the questioning of professional practice and lead to poor references, reprimands from a senior colleague or could tarnish the reputation of the consultant". In relation to risk management, making roles, responsibilities and accountability explicit has some significant implications when/if failures arise. In an organisation that fingers are either easily pointed at or they are quick to point them at each other, the risks of risk management may soon outweigh the benefits when all is said and done.

2.4.2 Explaining Practice Variation: Decoupling, Institutional Logics and Pluralism, and Organisational Identities

When it comes to explaining organisational variance of 'standardised' practices, Pedersen and Dobbin (2006) suggest that historically, institutionalism emphasises organisation-environment relations and depict imitation and diffusion as the legitimising process. They counter this perspective with a cultural view of legitimacy-seeking behaviours being dominated by intra-organisational factors that are characterised by internal learning and socialisation processes that

generate individualised identities. If this holds true, it is then fair to say that an organisational response to ERM will be shaped by contextual factors such as organisational culture and institutionalised expectations, which can act as complementary or competing forces shaping organisational behaviours (Masuda & Garvin 2006; DiMaggio & Powell 1983; Schein 2004). In this regard, the practice of ERM becomes less about technical competencies, skills and resource acquisition and more about the overarching struggle of organisations seeking to understand who they are and how they should act (Albert & Whetten 1985). However, aligning new institutionalised practices with that of pre-existing organisational arrangements can have a wide range of responses, often noted being that of organisational decoupling (Kodeih & Greenwood 2014).

From a neo-institutionalist perspective, the adoption of a holistic or ERM style of risk management can be viewed as an isomorphic response that could be subject to a host of decoupling strategies that serve to preserve the existing traditions, practices and the cultural core of the organisation (Meyer and Rowan 1977; DiMaggio and Powell 1983; Oliver 1991; Pederson and Dobbin 2006; Westphal & Zajac 2001). The concept of organisational decoupling, as originally conceived of by Meyer and Rowan (1977), transpires when the adoption of institutionalised practices has the potential, or do, contradict existing organisational norms, practices, and cultures. In response to this contradiction, the organisation decouples policy from practice in order to preserve a 'technical core' and at the same time be afforded the legitimacy that accompanies the apparent adoption of an institutionalised expectation. This process of decoupling affords organisations to adopt multiple, and at times conflicting, policies and achieve increased legitimacy on a multitude of fronts (Kratz & Block 2008). Power (1997) described presents the 'Audit Society' being primarily based on the notion of organisational decoupling. It is through what is described as 'rituals of verification', were organisations produce a veneer of policy adoption that gives the appearance of compliance while preserving existing organisational arrangements. For example, a decoupled response was seen to arise from the intersection of three main institutional pressures: the adherence to NPM (mimetic); increased demands for transparency and accountability (normative); and, the rise of quality assurance models of organisational control (coercive) (Power 1997; 2000:111). For Power, The culmination of these pressures generated an organisational obsession with self-checking that is less providing a challenge function and actually "functions primarily to make a certain style of auditing possible; it buffers the auditor from an increasingly complex evidence base, is cheaper than extensive attention to actual organisational process, and permits the audit to provide more or less comforting signals to regulators and politicians" (Power 2000:115).

ERM, with its internal control roots, has the ability to generate a similar response as it works to provide ex ante assurance that risks will be avoided and that current levels of risk are at a 'comfortable' level. Power (2004) has gone on to note how ERM has the ability to both turn everything into a risk to be managed by attaching 'secondary' risks or those risks posed to the reputation of an organisation by failing to attend appropriately to the risks posed to business objectives. In addition to this, Power (2009) also notes how the lack of challenge function posed by

ERM practices that focus on means over ends, produce what culminates into the 'risk management of nothing'. In essence, organisations focus more effort on demonstrating risk management rather than actually managing risk. Neo-institutional scholars have also recently begun to highlight means-end decoupling as a distinct form of decoupling. Policy-practice decoupling is more representative of a 'classic' conception of decoupling (Meyer & Rowan 1977), i.e. paying lip service to the policy but buffering existing practices from any substantive change. Means-end decoupling speaks to when "where formal structures have real organisational consequences, work activities are altered, and policies are implemented and evaluated, but where scant evidence exists to show that these activities are linked to organisational effectiveness or outcomes" (Bromley & Powell 2009:14).

Building on the notion of decoupling, the readily accessible artefacts representing a supposed healthy risk culture, such as risk registers, assessment matrices, and treatment plans, can carry significant symbolic weight organisationally. Unfortunately, dysfunctional aspects have been attributed to this cultural symbolism, via the generation of a false sense of security. In this regard, Clarke (1999a) notes that this sense of confidence can be ill-founded on what he terms illusionary control, and most notably, the creation of 'fantasy documents'. In presenting case studies that explored pipeline spills, nuclear power plant disasters and civil defence, Clarke suggests that organisations can design response plans that largely serve symbolic rather than substantive ends. This largely unintentional design flaw is shaped by a need to assure a growingly inquisitive public that all is under well and under control, if not controllable. Most often arising when a lack of available, or easily transferable, relevant historical data, professionals and experts seek to create 'apparent affinities' that "symbolically link extant bodies of knowledge, expertise, and experience and that these links make recognizable that which is unknown or unknowable" (Clarke 1999a:71). In essence, these affinities translate uncertainty into managerial objects of 'knowable' risks, upon which management can demonstrate some type of control. Once in place, these plans do little to truly reduce or solve the initial problem they sought to address but instead assume a much more political role within the organisation. Whether it be a concerned executive or an outraged public, fantasy documents serve little more than being a palliative mechanism that normalise dangers and disguise latent failures in favour of symbolic competence.

As much as organisations can buffer and detach from any form of substantive change when it comes to responding to organisational pressures, there are also other ways in which organisations can shift and change organisational understandings and practices. Building on the concept of means-end decoupling, a recent study explored in relation to the emergence of a need to improve risk culture within the banking and financial sector (Palermo et al., 2017). Following the financial crisis, pressures arose to redefine the role of financial institutions and shift the risk-taking logic exhibited prior to the crash, with one that emphasised control and prevention. In the face of two competing 'risk logics', one seeking to capitalise on opportunities and the other emphasising precaution and risk avoidance, an increase in institutional complexity was observed. The research demonstrated the dynamic interaction between the organisational practices that represented the

'means and ends' as well as the target of intervention itself, the risk culture. This interaction led to a 'co-evolution' of logics that were reconstructed and supported by shifts in everyday practices (Palermo et al., 2017:156). The above highlights the ways in which institutional pressures, pre-existing logics, and routine practices interact and shape how organisations both function and understand themselves.

Largely based on the initial work of Friedland and Alford (1991), the concept of 'institutional logics' has emerged to help further explain how organisations, and the actors that constitute them, identify with their work and how it relates to the world around them. In their effort to account for culture and symbolism and to push the discussion of institutional analysis beyond a purely structuralist argument, bringing 'society back in' to the fold, the authors suggest that institutional analysis of organisations must account for socio-cultural factors at a more micro level. Advancing this line of thought, scholars have evolved the concept of institutional logics, defining them as: "the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality." (Thornton and Ocasio 1999: 804). In doing so, institutional logics provide a means to deepen the analysis of organisational practice and allow researchers to account for dynamics of a more micro scale across organisations, as opposed to those transpiring at the field level.

How organisations vary their practices in response to institutional pressures to adopt legitimising practices has become of increased interest by organisational scholars. Recent research has expanded on the understanding that institutional pressures can result in organisational heterogeneity and, more importantly for this research study, practice variation (Friedland and Alford 1991; Thorton et al, 2012; Macpherson & Sauder 2013). Although the concept of institutionally driven isomorphism has not been abandoned, this recent research has begun to acknowledge the heterogeneous characteristics of organisations, the organisational dynamics of institutional pluralism and, practice variation across organisations (Pache & Santos 2010; 2013; Kratz & Block 2008; Greenwood et al., 2011; Dunn & Jones 2010) As such, the emphasis of a purely isomorphic response put forward by DiMaggio and Powell (1983) has increasingly come under pressure when forced to explain how organisations respond to and reconcile competing, and sometimes conflicting, institutional logics.

Outside of a few examples, insights into how risk management may, or may not, vary across an organisation are few and far between (Arena et al., 2010; Mikes 2009; 2011; Woods 2009). Arena et al.(2010) explored the organisational dynamics of ERM across three private-sector non-financial companies. They found that ERM was shaped by a mix of organisational rationalities, experts and technologies. Three risk rationalities (compliance, corporate governance and pervasive performance) emerged that were seen to shape and guide managerial attention. From there different 'risk experts' then operationalised the logic and served to further shape how the ERM programme unfolded by 'translating' the programme through a spectrum of responses ranging from

rule-based to more of a social learning style, indicating that although the adoption of ERM may appear isomorphic, its practice was not. Finally, risk technologies played a significant role in demonstrating the level of embeddedness afforded to the ERM programme. In the end, it was found that all three companies found little substantive benefit or use from the overly qualitative risk measurement techniques employed by the ERM programme.

Further to practice variation, Collier and Woods (2012) focused on the adoption of risk management frameworks by four local governments, two in Australia and two from England. This time, similarities between nations were noted in the use of risk registers ranking risks according to likelihood and consequence, as well as clear identification of risk responsibility, and risk mitigation tools. These similarities were attributed to the interpretation of international standards such as COSO (2004) and ISO (2009). However, motivation for implementing the frameworks is where differences were noted. In the UK, political intervention from the State evaluators was seen to drive the adoption where in Australia, insurance companies played the dominant role.

In further seeking to understand what can shape different types of practices, the idea of 'institutional logics' has been used as a means to help understand and analyse the dynamic interplay between institutions (e.g. the insurance industry or state evaluators) and organisational practices (Lounsbury 2001; 2007). In a study of the adoption of recycling programs at universities, Lounsbury (2001) identified variation in the practice due to competing technocratic and ecological institutional logics. The level of organisational commitment to the programs was seen to be directly related to the dominant organisational logic; the technocratic logic resulting in a symbolic adoption, with a minimum allocation of resources, as opposed to the ecological logic in which the program flourished and enjoyed a more proliferate program adoption across the campus. Practice variation was further noted by Lounsbury (2007) in regards to money management practices related two separate mutual funds, on in Boston and one in New York. The research found that two competing logics, one based on performance and one on trusteeship led to distinct management practices that highlighted the structurally situated nature of organisational identities and corresponding logics. The above research emphasises the need to account for multiple and at times competing logics that play could play a significant role in how ERM is interpreted and applied across the different departments at the PLA. However, as much as competing logics can influence organisational practices, so too can competing institutional environments.

A much as the internal dynamics can shape and organisation's practices, so too can the institutional environment in which an organisation is located. The concept of institutional pluralism is defined by Kratz and Block (2008:243) as "…the situation faced by an organisation that operates within multiple institutional spheres". Organisations that find themselves in institutionally pluralist environments are faced by competing, and sometime conflicting, pressures to achieve legitimacy on multiple fronts. Types of organisations that encounter have ranged from public sector organisations such as universities. Much of the early work on organisations coping with institutional pluralism is targeted at an industry/sector level and fails to fully account for the micro-processes and intra-

organisational dynamics associated with the existence of multiple institutional logics co-existing (Jarzabkowski et al. 2009). Other research has identified the emergency of 'hybrid organisations' as being representative of organisations that incorporate competing institutional logics and then manage them internally (Pache & Santos 2013).

Lastly, a nascent theme arising from the neo-institutional literature on organisational analysis is that of the role of identity plays in guiding organisational actions. Further to this, institutional logics have been closely linked to the expression of individual and organisational identities (Lok 2010). It is the combination of logics and identity that provide actors the organisational scripts of what is expected to be done given who they think they are (Thorton et al. 2012; Albert & Whetten 1985). This linkage between understanding the acceptability of a course of action and then whether or not that action will be seen as legitimate given who the organisation is understood to be, is an important factor to consider when making decisions about how mitigate risks to that which the public values. For example, Lok (2010) demonstrated how a shareholder value logic became a prominent factor that shaped executive-level strategic decision-making. The study explored the transition of power from financial managerial experts to that of the informed and 'voting' shareholder. However, the societal pressures to demonstrate firm performance through a lens of shareholder value were at the same time both accommodated and resisted. This happened through a transformation of organisational identity at a micro level via the incorporation of 'shareholder value' talk and subtle shifts in organisational practices. This 'identity shift' allowed for a preservation of long-standing practices to be legitimised by a process of translation. Much like the notion of organisational decoupling, this type of strategy highlights how 'problematising' through the language of risk may indeed be more about actors resisting organisational change rather than demonstrated a viable reduction in adverse events. That being said, others have framed this as a positive phenomenon in which the "fundamental reorientation of the perspective of risk management shifts from facing apparent uncertainties using technical assessment tools, to using conversations devoid of fixed formulas to encounter questioned identities, indeterminate destinies, multiple and conflicting aims and myriad anxieties" (Holt 2004:265).

2.5 Chapter Summary

The prevalence of ERM, in public and private sector organisations, has been largely driven by an increasing societal expectation that appropriate corporate governance is in place and upheld. This expectation has been driven by advancements in the technologies organisations utilise and the risks in which they pose to the achievement of societal and organisational objectives. A series of large scale financial failures that were seen to arise from a lack of adequate corporate governance lead to a dramatic increase in the importance placed on internal controls. A resulting virtual explosion of auditing and accounting practices produced a managerial mentality that any and all aspects of organisational life could be amenable to control and in doing so holding those accountable for reducing the likelihood and severity of any future adverse events. In this sense, ERM became an

indisputably moral, pragmatic and cognitively legitimate institutionalised practice for any organisation wishing to be seen in a socially acceptable light.

However, the systematic and 'standardised' application of an enterprise-wide approach to risk management has posed new challenges to the existing functional, structural and cultural arrangements of organisations. For example, they can take the form of increased, and at times uncomfortable, levels of transparency that can lead to a heightened sensitivity to blame. This can in turn influence how public-sector organisations attend to the interplay between institutional and societal risks. Others noted the challenges with how individuals and groups assess and construct various risks, and the cultural and cognitive structures that can infiltrate and bias organisational assessments. Further to the cultural dimensions of risk management, the highly symbolic and ceremonial adoption of risk management tools and techniques opens the door for a decoupled practice that speaks more to optics rather than substantive change. Furthermore, research has highlighted other factors, such as the role of isomorphic pressures to adopt legitimising practices; competing institutional environments; and, the role of identity and institutional logics have in impacting how and why managerial practices are operationalised at the organisational level.

What became very apparent throughout the literature review is the potential for ERM to decoupled from practice. There are a number of reasons and factors that suggest that a public-sector organisation will seek to conserve its original core and cultural arrangement when faced with institutional pressure to conform (Meyer & Rowan 1977). In navigating these pressures, they may manage them internally (Pache & Santos 2013), employ competing logics to gain legitimacy on multiple fronts (Lounsbury 2001), shift identities (Lok 2010), or decouple means from ends (Bromley and Powell 2009). There is further cause to suggest that ERM will see little success of matching 'paper to practice' due to the interaction of different risks (Rothstein et al., 2006), rituals of verification (Power 1997), the risk management of nothing (Power 2009), and methodological challenges of ERM itself (Huber & Rothstein 2013). All of this points to a strong indication that the PLA will demonstrate what is described as 'organisational conservatism' when faced with the responding to the implementation of ERM. In demonstrating this notion of organisational conservatism, it is expected that that various departments of the PLA will see to conserve their 'technical core' and also reinforce their identities as a means to increase in organisational legitimacy. Further to this, it can be anticipated that the interaction between identities and logics may work to subsequently legitimise a wide range of organisational norms, rationales and practices, of which risk management is one. It is with the introduction of the above concepts of institutional pluralism, decoupling, and identities, one can begin to understand how organisations use various institutionalised relationships to make sense of the world around them and in doing so, guide and shape what are appropriate courses of action.

Furthermore, the literature review also reveals a gap in current understandings ofERM as it transpires in-situ. What are the actual costs and benefits for organisations that adopt ERM and can

ERM practices actually be expected to reflect a 'reality'? The current organisational literatures reviewed above provide the opportunity to gain greater understanding and more nuanced account of some of the mechanics behind theories like risk colonization, the creation of fantasy documents and the exploration of how organisations come to 'risk manage everything'.

Moreover, the literature on the sociology of organisations stands to be expanded on. Here, knowledge gaps on how the organisations respond, absorb and modify institutionalised practices can be filled. At a micro-level, what is actually involved in the decoupling of risk management practices from risk management policy, as well as ERM's means from its ends? Furthermore, considering the subjective nature of how risk objects are constructed, identity may have a role to play at the individual, departmental and organisational level. The idea of 'who one is' could logically influence what risks become more or less relevant. As such, gaining access to the variety of narratives that are being constructed by the actions, documents and discussion that constitute the practice of ERM at the PLA, is paramount in order to present new scientific insights. In achieving the above, the research study aims to answer the stated research question of: How and why does the PLA respond to the introduction of an enterprise-wide approach to managing risk?

Chapter 3 Methodology

3.1 Introduction

The first two chapters of this thesis served to highlight the significance of the identified research problem, that of public sector organisations seeking to introduce ERM style approaches to risk management. A review of the literature focused on how ERM has come to assume such a legitimising role within organisational settings. It presented the past academic findings that demonstrate how organisations manage risk is dependent on a range of organisational arrangements and institutional dynamics. The literature review also suggested the benefits of applying a neo-institutionalism lens in order to further understand how organisational logics and technologies shape, and are shaped by, the ongoing need to legitimise an organisation's existence. However, what now becomes fascinating is how does introducing such an all-encompassing way of constructing, communicating, and responding to organisational threats, adverse events and consequences challenge, reinforce or change their pre-existing ways of understanding risk and themselves? Moving on from the previous two chapters, the third chapter is used to present an appropriate research approach, design, data collection method that could be seen to best generate new knowledge about the research topic.

The goal of this research is to undertake a micro-level (i.e. sub-organisational) analysis of the dynamics associated with operationalising an enterprise risk management system by the PLA. Although the PLA has only recently adopted a formalised organisation-wide approach to managing risk, it can be argued that it has been applying a range of formal and informal tools and techniques to manage risk since the organisation's inception over a hundred years ago. In acknowledging this, what becomes of interest is, will the PLA use the formal practice to simply gain legitimacy or will ERM actually challenges pre-existing rationales and ways of operating? Do employees reconceptualise existing procedures as now being representative of formal risk management activities or does the introduction of actually ERM generate new risk controls and ways of responding to long-standing issues? Does this 'uniform' approach to managing risk differentially manifest across the various functional areas of the organisation, and if so, how? And lastly, does the PLA conserve its technical core and if so, what role does its identity play in achieving this? In order to begin to explore these questions, an appropriate approach to the conducting the research.

3.2 Research Aims and Approach

The research sets out to discover, and locate within existing theory, the nature of one organisation's experience of introducing a formalised, enterprise-wide approach to managing societal and institutional risks. This research study is focused on management processes common to an increasing number of public sector regulatory agencies (Power 2004) and in doing so, explores the

internal dynamics associated with managing both societal and organisational risks. It is the 'typical' nature of the organisationally legitimising adoption of ERM that is to be explored. The study also is focused on exploring the initial organisational reaction to ERM. In this regard, the research is looking to capture how the adoption of ERM is challenged or supported by the pre-existing risk management practices and organisational arrangements. Since its inception, the PLA's daily operations have been focused on reducing accidents on the river, promoting economic growth and keeping its employees out of harm's way. Many of these activities have already been interpreted as 'risks to be managed', so what, if anything can the introduction of an enterprise-wide approach offer the organisation?

In regards to focusing on the organisation's response to ERM, the study is also concerned with how this reaction may vary across the sub-organisational units. Historically, the bulk of neo-institutional organisational analysis focuses on how practices vary across a field rather than an individual organisation. This lack of research knowledge may have persisted partly because of significant practical and conceptual obstacles to addressing it. Obstacles include gaining access to what is often seen as sensitive information; obtaining and holding the confidence of a respondent organisation; and demonstrating sufficient authority and knowledge to maintain respondents' full trust and co-operation throughout the duration of a study. In overcoming this, the outcome of this research is a micro-level account of the institutional dynamics of implementing an enterprise-wide risk management framework.

In order to explore the PLAs response to ERM, the following research question is used to guide and shape the study:

How and why do different areas of a public organisation respond to the introduction of an enterprise-wide approach to risk management?

There are numerous ways of structuring an academic inquiry into how and why an organisation practices risk management. However, in order to generate new knowledge and novel findings, the approach should enable an exploration at the level of sub-organisational units (i.e. departments), as at the individual employee level. These 'micro-level' dynamics are representative of the interactions and interpretations of what it actually means to manage risk through an enterprise-wide approach.

3.2.1 Adopting a Qualitative Approach

The decision here to pursue a qualitative, rather than quantitative, approach follows directly from the nature of the research question. Quantitative methods are well suited to speak to capture amounts and frequencies, and typically when there are a great number of cases that are involved (Darlington & Scott 2002). However, this research is concerned with attributing meanings to actions and the understanding of organisational behaviour and formal responses to risk. As such, the 'analytic induction' offered by qualitative approach is best suited to this research study

(Flowerdew & Martin 2005). Why and how the organisation practices risk management is influenced by a complex interaction between an organisation's composition (structure, culture and function) and its institutional environment. The socio-cultural dynamics across different areas of an organisation work to guide and shape an actor's understanding of what constitutes a risk and how best to respond to it. As such, successfully exploring these interrelated issues would appear to be less suited to quantitative approach and rather, more amenable to data generated by qualitative means, such as semi-structured interviews, document analysis, and observing participants in-situ.

Denzin and Lincoln (2011:3) define qualitative research as "a situated activity that locates the observer in the world and consists of a set of interpretive, materials practices that make the world visible" but note that each practice makes the world visible in a different way. Description in the qualitative research realm is not achieved by simplifying observed phenomena but by studying and representing them in as many dimensions and layers as their multi-faceted forms take (Leedy & Omrod 2011). The importance of adopting a qualitative approach to research in this study is that, as Winchester and Dunn (2010:7) point out, "The experiences of individuals and the meanings of events and places cannot necessarily be generalized, but they do constitute part of a multifaceted and fluid reality. Qualitative geographical research tends to emphasize multiple meanings and interpretations rather than seeking to impose any one 'dominant' or 'correct' interpretation". As this research looks to understand risk management from the PLA's point of view, a qualitative approach that is sympathetic to the multifaceted nature of reality is key; a significant facet being that of the researcher's own views and role in regards to the creation of knowledge about the phenomenon.

3.3 Case Study Design

In adopting the qualitative research methodology, a case study design was seen as best way to compliment the inquiry. The study design entails a single case (the PLA), and will use sub-organisational units based on departmental functions as 'embedded' unit of analysis. In describing what constitutes a case study, Yin (2009) proposes a two-part technical definition. The first part being that "… investigates a contemporary phenomenon in depth and within its real-life context and that the boundaries between phenomenon and context are not clearly evident". The second part identifies a case study as "relying on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis." (Yin 2009:18). In conceiving of the case study method in this way, it distinguishes case studies as the appropriate manner in which to understand the real-life phenomena of managing risk in the PLA that accounts for the organisation's contextual circumstances. The second part of the definition addresses the need to acknowledge this relationship and to account for it in the collection and analysis of the data. It represents the case-study as not simply a data collection and analysis technique but as an aligned

and over-arching method that can be used to address both practical, 'real-life' problems as well as useful in testing, expanding or generating theoretical concepts (Baxter 2010).

In identifying what makes a good case study, it is really driven more by the types of questions a researcher is seeking to answer and less by the phenomenon in question. Case studies are especially well-suited to research targeted on a specific single organization, as its design allows the researcher to overcome issues pertaining to generalizability by emphasising analytical and theoretical dimensions over that of the more traditional statistical generalizability. As Vaus (2001:237) explains, "theoretical generalization involves generalizing from a study to a theory. Rather than asking what a study tells us about the wider population (statistical generalization), we ask what the study tells us about a specific theory. Case study designs are fundamentally theoretical. They are designed to help develop and refine theories".

Perhaps the most significant criticisms of researching a single case study is that a single occurrence is in no way representative of a general theory. Flyvbjerg (2006) seeks to dispel this and other myths about the validity of case study research in demonstrating the importance of learning from single occurrences. Flyvbjerg (2006:222) posits that although rule-based conceptions are a very powerful component of human knowledge, expertise is represented by an individual who: "… operates on the basis of intimate knowledge … Such knowledge and expertise also lie at the centre of the case study as a research and teaching method or … as a method of learning." It is through the building of rich, detailed, and intimate accounts of single instances that expert knowledge of a subject can be amassed. As such, this case study looks to contribute to that building of knowledge through its nuanced account of ERM introduction into a single organisation.

The identification of a suitable single case study for this research study was facilitated through King's Centre for Risk Management, in that the PLA had recently sought advice regarding its efforts to operationalise its newly formed enterprise-wide risk management programme. In exploring this further, the researcher identified the PLA as an excellent case study candidate and the organisation was receptive to the idea of being open to participating in the research. The case of risk management at the PLA presents an opportunity to research a well-established organisation whose long-term intra-disciplinary risk management profile highlights the interplay of a pluralistic institutional organisational environment. Although the PLA's core task is centred on the risks posed to navigational safety, it must balance them with the competing factors associated with a fluctuating global economy, rapid technological advancements and increasing demands for evidenced-based decision-making. All of this sets up the PLA to be an excellent case study candidate. However, this is not to say that this case does not present limitations or constraints that must be acknowledged and accounted for in order to ensure that a factual and true presentation of the phenomena is captured.

3.3.1 Accounting for Reflexivity and Personal Bias

The term reflexivity has been applied to identify "the awareness of the researcher practicing research and the way this is influenced by the object of the research, enabling the researcher to acknowledge the way in which he/she affects both the process and the outcomes" (Haynes 2012:72). In defining it in this way, Haynes acknowledges how a researcher's methodological conduct and theoretical pre-understandings influence the way in which findings and conclusions are interpreted. Reflexivity can be seen to take place at a variety of levels throughout the research process, from the theoretical and methodological to the ontological through to the emotional and subjective. What is important is to account for this process as it transpires during the research process via comprehensive fieldwork notes, acknowledging theoretical assumptions about the subject and to record relevant thoughts and feelings about the overall process in general.

Johnson and Duberley (2003) outline three positions a researcher can assume in regards to reflexive approaches to management research. The authors describe a purely realist/objectivist, a purely subjectivist and a hybrid realist/subjectivist approach to reflexivity that highlight the importance of accounting for the relationship between researcher and subject. As this researcher assumes a social constructionist approach to epistemology and leans more to a realist view of ontology, the authors suggest that in this instance "key role of reflexivity is to negate the world as an objectively accessible social reality and denaturalize hegemonic accounts by exposing their modes of social organization and reproduction" (Johnson & Duberley 2003:1289). For management studies, they suggest that the researcher is positioned in a role of facilitator, tasked with reinterpreting an organisation's problems in new ways. The subsequent texts generated by this reinterpreting process "…become the basis for reflexive action by enabling the development of knowledge and transformative strategies that are practically adequate for coping with and resolving an [organisation's] own problems" (Johnson & Duberley:1292).

3.4 Data Collection and Analysis

In regards to case study research design, Yin (2009) identifies four types of validity a researcher should be concerned with: construct; internal; external; and reliability. Construct validity relates to correctly identifying the operational measures and is ensured by relying on multiple sources of evidence and then linking them together. Internal validity relates to being able to support that cause-effect type relationships developed through explanation building analyses directly to that of the collected data. Additionally, it must be able to address and/or refute rival theories of explanation. As noted above by Flyvbjerg (2006), external validity for single case studies such as this one require analytical generalizations to be linked to theory. Finally, reliability must be ensured through the researcher to design the research in such a way that if another investigator followed the same procedures they would arrive at the same findings and conclusion.

By collecting primary data from three different sources the researcher looks to achieve a data triangulation that will enhance the research study's validity. The first set of data was generated

through the review of risk management related reports and documentation. Examples of this type of data include processes of risk identification, analysis and reporting behaviours, such as risk registers, policy documents and monitoring reports; supporting policy and internal guidance on risk policies and more generic and informal risk reporting mechanisms such as the PLA's annual report to stakeholders; as well as broader organisational operating procedures and handbooks. The second set of data was generated by directly interviewing those employees involved with managing risk. This primarily focused on all employees who had been identified as members of the ERM risk committees, as they were directly responsible for operationalising the programme. And thirdly, data was collected through participant observation of actual risk managing activities in which employees identified, analysed, and/or responded to risk during their daily activities e.g. meetings, pilotage activities, inspections and reporting practices. A thorough record of contextual details that surrounded each department, including information about the physical environment and any historical, economic, and social factors, was also sought, contingent on availability.

3.4.1 Document Review

The first source of data was generated through the reviewing risk management documents. The documentation that pertains to answering the questions of this research study was represented through formal risk management policies, risk registers identifying risks, risk assessments that serve to rate and rank risks as well as any monitoring or directly associated communication reports such as quarterly updates and even PowerPoint presentations. The intent behind reviewing these specific documents was to analyse how people are constructing and using documents to 'officially' capture, communicate and monitor the risk. This is done to not only show how closely aligned they are to the institutionalised description of risk management practices outlined in the international and national standards and guides but to also provide an understanding of how they articulate risk and where their values lie. The documentation allowed for cross-referencing of the oral accounts of how risk is and was managed at the PLA.

A thorough review of available documents was conducted. In regards to risk management specific documentation, the researcher was able to gain access to five risk registers, a newly introduced 'ERM' risk policy, the risk management framework, risk committee terms of reference and membership, as well as some project specific risk assessments. Other available documentation that demonstrated their communication of risk, such as annual reports, and official communications (e.g. notice to mariners). Lastly, a review of statutory guidance documentation and legislative requirements, as well as sector-specific literature such as best practice documents and International Standards Organisation material provided insight into what 'professionalised' conceptions of risk management were being relied upon by the organisation.

3.4.2 Pilot Interviews

Three pilot interviews were conducted with the PLA's Chairman, the Legal Secretary, and the Head of Risk Management in order to explore the viability of the organisation as a possible case study as well as to gauge their receptiveness and interest in participating. These key 'gate-keepers' to the PLA served to confirm the suitability of the organisation. After a series of discussions, the management team pledged their full support of the project and welcomed the opportunity to participate. In addition to confirming access to the organisation, the initial interviews provided insight into the general status of the organisation's risk management programme. A draft corporate risk register was also reviewed and provided insight into the organisation's current conceptualisation of the key risk areas it is required to manage.

Based on this initial exploration, it was decided that the best approach would be to use the PLA as a primary unit of analysis and to then identify sub-organisational units of analysis in order to deepen the exploration. As such, three sub-organisational units were identified that represented the functional areas of the organisation; Navigational Safety, Marine Services, and Administrative Services. In sectioning the PLA in regards to the type of work each area was focused on, allowed for cultural, functional and structural delineations to be made more easily. For example, Navigation Safety was primarily concerned with the risks posed to, and stemming from, the safe travel of public and commercial river traffic. Marine Services was concerned with the threats to the safety of staff, operational efficiencies, and maintaining infrastructure. And lastly, Administrative Services represented the corporate functions common to most organisations such as Finance, Human Resources, Legal, and Corporate Affairs. Carving up the risks in this manner also allowed for a clearer separation between societal and organisational risks.

3.4.3 Semi-Structured Interviews

Semi-structured interviews were conducted with those employees who have a close working relationship with the identified risk categories. Dunn (2010) describes three types of interview methods most commonly relied upon when collecting qualitative data in an organizational setting; structured, semi-structured, and unstructured. Structured interviewing delivers carefully worded questions in a precise and ordered manner to each respondent in as close to an identical manner as possible. In this regard, structured interviews lend themselves more to quantitative studies, in that they solicit more objective 'yes/no' types of responses. In contrast to this, semi-structured interviewing provides a more flexible and exploratory approach to the line of questioning that allows for the uncovering of contextual elements that may have influenced the respondent's answers. Unstructured interviewing is where interview subjects provide an oral history that is prompted by a unique set of questions relevant to each participant. As such, semi-structured interviews were deemed the most appropriate given the need to explore the participants' understanding of how and why to manage risk balanced with the need to guide and focus the discussion.

Although the PLA's risk management policy states that all employees have a role in managing risk, employees were selected based on their role having a primary and direct impact on the risk (i.e an accountant would not be suitable to represent the management of an environmental pollution risk). The purpose of these interviews was to generate narrative accounts of the employees' past and present experiences in managing the identified risks. Questions were designed to uncover the rationales behind the actions they undertake to manage risk, what is organisationally expected of them, and what tools and technologies were available to support those behaviours. The discussions focused on what the staff saw as the underlying values the organisation supports and if this had changed over time.

A total of 41 interviews were conducted with 37 individuals. This provided a representative sample that included the majority of individuals that were tasked with operationalising the formal, enterprise-wide approach to risk management. The goal here was to acquire interview data from a representative population of those employees across the entire organisation who were directly involved in operationalizing the risk management framework. Each interview was on average 60 minutes in length and were conducted face-to-face at the PLA's offices at Gravesend, Denton Warf and Trinity House. Each semi-structured interview comprised 20 to 25 open-ended questions and were grouped into three sections. The number of questions asked varied due to the fact that in providing comprehensive answers, interviewees sometimes gave responses that spoke directly subsequent questions. The first set of questions warmed up the interviewee through asking about their past career(s), what brought them to the PLA and what their current role was about. The second set then explored their understanding of enterprise risk management and the types of risks currently facing the organisation. The third set of questions then dove deeper into the mechanics and techniques that they relied on, how they had been introduced to, and asked to practice, enterprise risk management, and what challenge they faced in managing risks – through either their existing methods or through the new tools and processes associated with the formal program. The interviews then closed with an opportunity for the interviewee to expand on any of their responses or to speak to anything they felt might be relevant but didn't get the chance to discuss.

Four follow-up interviews were conducted with select individuals based on the complexity and findings of the initial interview. The follow-up interviews allowed for more in-depth responses that related to specific examples given during the first interview, such as risk-based HR strategies as well as emerging safety issues on the river that developed over the course of the case study. Three interviews were held outside of these PLA-based locations due to the interviewees roles in external organisations. Specifically, this was the external consultant hired to aid the implementation of the risk management framework, a member of PLA Board of Directors, and lastly, a Harbour Master from an alternate Port Authority, used to provide an external validation of the general issues and conceptions of risks being faced by the PLA.

Data was gathered by the researcher sitting with each respondent, with their express consent, recording their responses. Each interview was recorded and transcribed by the researcher. Text

transcription was to enable various analyses including highlighting of key recurrent themes and uses of vocabulary; drawing analogies and observing patterns between different respondent accounts; and selective highlighting of personal narratives representing the lived experience of managing risk within the organisational setting. Field notes supplemented the interviewing processes and used as means to highlight specific portions of the audio file for future reference. All respondents gave consent for their words to be quoted on condition that persons would not be identified by name. Analysis of the data does not disclose specific sources although the nature of each respondent's organisational position is sometimes evident from their response content, for example when describing a management strategy to deal with a specific type of organisational issue.

3.4.4 Passive Participant Observations

The third and final source of data was that of passive participant observations. Here the researcher assumes a passive by-stander position and looks to view the practice of risk management first hand and in action. Time and place form the essence of geographical research and observing the current practice of risk management within the bounds of the organization is critical data to collect. Here the researcher looks to gain complementary evidence that supplements the data collected from interviews and documents (Kearns 2010). The researcher sought out opportunities to observe key activities identified within the documents and interviews (e.g. risk assessment workshops) so as to observe the practice as it transpires. The intent is not for the researcher to immerse into the organizational environment but rather to remain a complete observer and view the action in a 'fly on the wall' style manner. The observer will be able to engage participants throughout the process to seek clarity on process and intent. The selection of participants to be observed will be determined through the interview and document analysis portions of the research. The goal of the observations is to compare the findings of the rationales and technologies with that of how it then actually transpires in an operational setting.

Throughout the course of the study, seven specific instances were made available to the researcher that provided for the collection of participant observations. Three of these were in the form of public meetings that were routinely held every four months as a means of updating the public as to the status of current operations relevant to their local areas, as well as serving as an opportunity to discuss any issues, concerns or risks that they felt needed further attention from the PLA. There were also two opportunities to attend three internal meetings at the PLA that were specific to the process of managing risk. A Navigational Management Team meeting, that was held monthly, was attended. These meetings were used to review a 'rolling-list' of navigational hazards. A group meeting of the 'internal risk register' owners was attended in which they reviewed the list of risks they had assembled via the aide of an external consultant. And lastly, a meeting between the Chief Risk Officer and the Executive Board was witnessed in which an update was provided on the status and progress of the risk management program. The last of the seven participant observations was that of a risk management workshop focused on some enhanced risk management analysis

software used by the staff of the Navigational Safety department which was offered by the developers of the software program.

In addition to the specific instances noted above, the researcher was also afforded desk space within the Gravesend head office. Starting in August of 2013 and lasting the period of a year, the researcher was able to work from a desk located in the navigational safety offices and was granted access to walk freely throughout the organisation's offices. This provided the opportunity to overhear conversations and phone calls between employees that quite often mentioned, if not revolved around, the need to address specific risks. It also allowed the researcher to ask clarifying questions in relation to the documents reviews as well as those that arose during the interview transcriptions. Lastly, it was also helpful in that it gave the researcher the ability to truly get a sense of what daily life was like within the organisation, how different hierarchies were playing out, and to substantiate the cultural and institutional elements of 'family' that so often arose in the descriptions provided by employees seeking to describe what it was like to work at the PLA.

3.4.5 Ethical Considerations

Great care was taken to ensure the research adhered to King's College London's (KCL) ethical guidelines. This speaks to the need for securing voluntary participation and informed consent supporting the purpose of the study; not putting participants at risk, and preventing harm; protecting and respecting privacy; and presenting respondents' views accurately (Creswell 2003). In line with current practice at KCL, ethical considerations were addressed with care. As the research involved the participation of humans, approval was sought from, and granted, by KCL's ethics office. In the practical context of the interview, ethical considerations were handled in a conventional manner: Each respondent was sent, and approved before giving an interview, a letter of ethical undertaking (see Appendix B). This letter follows the standard required of all postgraduate researchers for KCL, with details specific to the present research project, and was lodged with the college's ethics office before fieldwork commenced. Given the potentially sensitive nature of the risks, and the associated management activities, that were being discussed, care was taken to anonymise respondents as best as possible. All interviewees re-confirmed that they were content to be quoted on condition of anonymity. However, it was agreed upon with the PLA that the organisation itself would not be anonymised in order to provide relevant, geographic, context and historical background that would be highly relevant to the management of risk. Respondents were also given assurances on confidentiality of records, including secure storage of data; that audio and transcribed data are to be destroyed on completion of the research project; and that transcriptions and other work-in-progress analyses will themselves be stripped of any identifying features (e.g. "P11"). For research integrity, original data remained open to research supervisors' access whilst this dissertation was being compiled.

3.5 Data Analysis

The analysis of data associated with case study research can be conducted in a variety of ways. Leedy and Ormrod (2011:141) emphasise the need to logically organise facts about the case; categorise data into meaningful groups; examine data in relation to their specific meaning to the case; scrutinise interpretations for underlying themes; and, to be able draw conclusions that may have implications beyond the specific case that has been studied. Yin (2009) provides guidance on data analysis by recommending five techniques: pattern matching; explanation building; time-series analysis; logic models; and, cross-case synthesis. Yin (2009:130) also describes the significance of adopting an appropriate data analysis strategy and corresponding technique that will allow the researcher to "treat the evidence fairly, produce compelling analytic conclusions, and rule out alternative interpretations". In keeping with Yin's recommendation, a combination of explanation and Leedy and Ormrod's (2011) analytic approach to case studies was adopted. In doing so, this meant that while the researcher examined the evidence, theoretical positions were revised, and the evidence was examined again from the newly created perspective. The final result was a set of findings that are fully supported by relevant data and are defensible. The following provides an overview of how the 5-stage process was followed:

1. *Organization of details*: Data from the transcribed texts, field note observations and documents were reviewed in organised.
2. *Categorization of data*: The data were then categorised into meaningful groups such as 'telling stories about risks', 'professional judgment' or 'assessing risk'.
3. *Interpretation of single instances*: Specific instances or 'one-off' occurrences of data, such as a vendor risk assessment workshop on a new software offering, were reviewed to understand if they could yield any specific insights.
4. *Identification of patterns*: The data was scrutinized in order to identify underlying themes and other patterns that could characterize the case more broadly than a single piece of information can reveal. The completion of this step underwent a series of revisions as new data were collected and further insights were gained.
5. *Synthesis and generalizations*: This resulted in the overall 'portrait' of the case being developed and, grounded within the literature, painted the picture of 'organisational conservatism' that was being demonstrated by the PLA.

As risks are characterised by the probability and impact of specific unwanted events, the semi-structured interview questions often generated recollections about either things that people didn't want to go wrong or stories about things that had gone wrong i.e. accidents and failures. Stories were also identified that related to the history of the organisation, intra-departmental working relationships, as well as interactions with the public and industry. The use of stories to capture and communicated risk information is significant in that "They do not present information or facts

about 'events', but they enrich, enhance, and infuse facts with meaning" (Gabriel 2000:135). The analysis of stories associated with the perceived and realised risks embedded within them, provided significant insight into the organisation's underlying values and culture.

In the second stage of the analysis, three initial broad categories - cultural, functional and structural - were used to classify the data and describe the different organisational dimensions that ERM was transpiring. The data was then categorised according to various themes within the management literature such as 'decoupling practice from policy' or 'risk assessment techniques'. This process was iterative insofar as it helped refine the analysis of transcripts, in turn yielding more nuanced underlying themes.

For example, the following excerpt from Chapter 7 speaks to the embedded meanings that the 'risk story' contained:

> *"We introduced a warning system much like football – yellow means warning, red is a dismissal. Once you've got one group forced to adhere to a policy, they then look around and go 'why are that bunch of people not wearing life jackets'. And in fact, that's what they did. They would take photographs and I would get photographs of people not wearing lifejackets and they would say, 'what are you going to do about these people? If you're willing to force it [on] us, force it on other people"* (P4)

Here, not only are the broader themes of river safety, risk assessment and risk identification present, but the accompanying story sheds light on the hierarchical power dynamics, allocation of responsibility (i.e. risk ownership) and governmentality that shaped the values and expectations of the organisation. The third stage of the analysis provided the ability to highlight and explore any single instances of data being assigned to a stand-alone category to ensure they were not part of any broader related theme. The continued refinement of each of the groups and themes helped identify the patterned ways in which the PLA was implementing ERM across the various departments (i.e. stage 4 of the analysis). These patterns spoke to issues like the cultural preferences of the Marine Services department to adopt an individualist stance when operationalising ERM, or the tendency of the Administrative Services department to externalise many of the risks they were tasked with managing. The generalisations began to articulate and support the findings that relate to organisational decoupling, the role of identity in managing risks, and how the tools and techniques of ERM are repurposed to achieve much different ends than the means were originally intended to produce.

3.6 Chapter Summary

The intent of this chapter has been to outline why the PLA was a good case study to explore a public organisation's response to the implementation of ERM. The unique data set enclosed within the people, rationales, technologies and activities that comprise the organisation speak directly to the challenges of operationalizing a risk management process from a regulator's perspective. The proposed strategy assumes that a qualitative approach to data gathering that places an emphasis on participant and researcher reflexivity is critical in generating an accurate portrayal of the everyday

practice of risk management by the PLA. The design of the research is one of a single 'embedded' case study. It justifies the use of a single case method by stressing the difference between statistical and analytical generalizability. It triangulates sources from three primary sources of data; semi-structured interviews, document reviews, and participant observation. An explanation-building approach to analysing the patterns present within the data will be used to develop a rich and multi-layered analysis of how the Port of London Authority manages risk in the way that it does. Approaching the research in this manner will allow for accurate, interesting and novel perspective on the under-researched area of the practice of risk management by public organisations.

In the next chapter, an overview of the chosen organisation for the case study is provided. It provides an introduction to how the organisation came to be and it's how its relationship with risk management has evolved over its 100+ years in operation. It provides a picture of both the current operating context in which it now finds itself along with the constraints and challenges that are unique to its remit and organisational mandate. It also provides a brief synopsis of the current status of its risk management efforts along with some of the internal and external drivers that have shaped this perceived need to operationalise an enterprise risk management framework.

Chapter 4 A Brief History and Background of the PLA

4.1 Introduction

This chapter provides an introduction into the case study organisation. It reviews how the PLA came into existence, some notable historical events and developments, the organisation's composition and governance structure, and some current-day organisational challenges and operating constraints. The chapter also provides the background context of what the current state of risk management is at the organisation, as well as some of the institutional and organisational drivers of the practice. The chapter concludes with a roadmap outlining the empirical, discussion and concluding chapters that follow it. The intent of this chapter is to set the scene as to some of the defining factors that support why the PLA is such a viable and rich source of data.

4.2 What is the Historical Context of the PLA?

Dating back to pre-Roman times, London was a port long before it ever became the thriving metropolis that it is known it to be today. Roman settlers quickly identified the significance of the geography with the Thames estuary in that it is directly opposite the mouths of Europe's primary trade river channels providing ease of access deep into the continent (PLA 2014). Although the significant growth of the Port of London can be attributed to location, it was also the social, economic and financial wealth of the City that could support and sustain the port's development. Steady increases in trade over the centuries has continually placed pressure on the port's infrastructure in order to meet the demands of increasing vessel sizes. As London neared the end of the 18th century, port trade was doubling every 25 years with imports in 1792 into England amounting to £17,898,000 and exports to £23,674,000 (PLA 2014). The capabilities of the port were being exceeded, with some moorings that were originally built to accommodate 545 vessels now harbouring over 1700 (PLA 2014). It is safe to say that the conditions on the river, from a safety standpoint, were quickly deteriorating, as was the ability for ships to move their cargo in and out of the port.

The combination of a rapidly expanding British Empire, an increase in the size and number of vessels associated with international trade, and the competing interests of the private wharves that populated the Thames's riverbanks, began to threaten both the safety and productivity of the Port of London's operation (Brown 1978). The port's economic viability was further strained by a steady decline in trading with India along-side a series of droughts in Australia that directly impacted wool imports. In addition to this external risk of economic downturn, the situation became even further exacerbated by the fact that the independent docks were also dealing with issues much closer to home in the form of labour disputes and the dangers resulting from a longstanding lack of much needed infrastructure improvements (PLA 2015). The culmination of these pressures resulted in the Government announcing the introduction of a Royal Commission in 1899, which over a period

of two years, executed a review of the administration of the port and was asked to suggest appropriate improvements to ensure the promotion of trade and to uphold the public interest (PLA 2014). The Commission's report in 1901 recommended the official formation of a unified port authority would be required in order to ensure the Port of London would remain competitive (i.e. efficient and effective) and that improvements to the river would occur when and where appropriate (GB 1902). However, the recommendations were not initially well received and it would take several attempts until the Port of London Act was finally passed in 1909 (Watson 2009), which charged the Port of London Authority with the conservancy of 95 miles of Thames waterway, from the locks at Teddington to the North Sea (See figure 4-1).

Figure 4.1: Map of PLA Jurisdiction: Teddington Lock to Thames Estuary.

As much as the newly minted PLA would seek to impose order and structure to the increasingly chaotic river environment, it was not soon after that significant labour issues would bubble up to the surface. Although the resources allotted to the much-needed significant improvement of port infrastructure resulted in increasing international trade, the labour force soon began to question if they were receiving their fair share of the increased profitability of the port (Brown 1978). As such, the unionised dockworkers would conduct two major strikes between 1911 and 1912 and although the PLA had limited ability to directly impact the working conditions present in the private docks, an agreement was eventually drafted. A considerable lack of trust was generated by the first strike and within the year, the workers were back on the picket lines after an inter-union dispute. From an early age, the PLA was forced to recognise the critical role that front-line staff played in not only keeping ships afloat on the river but for revenue coming through its doors.

The PLA has been forced to dramatically shift its operational focus on more than one occasion as well. The port has played a significant role in both World Wars, with substantial operational impacts being caused by a lack of available workers, loss of key infrastructure due to bombing, and dramatically reduced revenue from impacted trading routes (PLA 2015). Upon the completion of post-war building efforts, the significant rise in tonnage of the 1960's gave way to what is perhaps the most significant threat the PLA has faced – technology. As a result of their lack of anticipation of modern container shipping, between the mid-60's and 1980, one by one, the enclosed docks under the PLA's jurisdiction would close due to lack of adequate infrastructure to accept the new

containers. In addition to losing the physical ability to service the shipping industry, the docks were further crippled by the post WWII National Dock Scheme, which among other things, guaranteed unionised dockworkers a weekly wage. The financial burdens reached a breaking point at the end of the 1970's when the port effectively reached insolvency. Government intervention in the form of grant money, as well as a voluntary severance scheme helped ease the financial constraints imposed by a surplus workforce and the PLA saw its staffing numbers more than halve from 3,245 in 1984 to less than 1,500 just two years later (Watson 2009). However, despite the signification reduction in staff, as well as the financial buoyancy provided by government aid, the PLA was still facing considerable challenges in dealing with the implications that accompanied the technologically driven change.

In addition to the direct economic implications, the advent of containerisation marked a new emerging class of operational risks to do with the suitability of existing infrastructure that the PLA hadn't been forced to consider before. For example, as there were still berths left that were able to service containers, the ships now travelling the Thames were bigger, faster and more plentiful in numbers (Brown 1978). The pre-existing tools and technologies being utilised by the PLA to monitor traffic, survey the riverbed and direct traffic were simply not built to handle the newly enhanced capabilities of vessels. As navigational safety is a primary function of the PLA, the organisation had little choice but rapidly develop and acquire state-of-the-art technology that could manage the pace of change. Technological advances such as radio, radar, and weather reporting stations, had been implemented from the 1940's onwards, all of which increased the ability of the PLA to service its industry. However, much like an error-inducing environment outlined by Perrow (1984) and Downer (2011) these innovative technologies also had the potential to increase system complexity and reduce the margins for navigational error.

One example has been the introduction of precise computer-aided measuring capabilities by the hydrography department, which has considerably reduced the margins for error in accounting for appropriate keel depth along the river. The imprecision accompanying older, lead-line technology used to measure river depth, forced vessel operators to use buffers to account for improper measurements. Now, however, the confidence that accompanies computer measurements runs the risk of providing a false sense of security, with operators relying on centimetres of clearance when navigating the river. In 1986, the existing data management system for the river was linked with modern radar technology to produce a vessel traffic management system (VTS), much like those used by air traffic controllers. Despite all of these advancements, however, in 1989 the PLA bore witness to one of the largest peacetime loss-of-life incidents of that century when a passenger vessel – the Marchioness- and a dredger collided (Watson 2009).

The sinking of the Marchioness is perhaps the most significant navigational safety incident that the PLA has ever experienced. On the night of August 20, 1989, the passenger vessel, collided with the Bowbelle, a dredger, resulting in the loss of 51 lives. An immediate investigation conducted by the Marine Accident Investigation Branch of the Department of Transportation found that the root

cause lay with the failure of the captain of the Bowbelle to maintain a proper lookout (MIAB 1989). The PLA was required to further bolster its navigational aids by installing automatic warning lights on 19 bridges along the Thames. Increasing public pressure arising over concern and criticisms regarding the handling and identification of the deceased resulted in a second formal investigation, that was to review the entire incident again. However, this second inquiry found any criticisms of the PLA to be unfounded and came to the "…clear view that the PLA is an entirely suitable authority to continue to be responsible for the regulation of navigation on the Thames." (Clarke 1999:63). In providing 'lessons learned' from the incident, a recommendation was made that the PLA should issue formal warnings regarding the need to address the issue of limited forward visibility and the ability of a forward lookout to communicate with a Captain in the wheelhouse. However, this factor was not seen to play a role in the Marchioness incident in that the PLA had given the captain the of the Bowbelle a verbal warning, however it was not documented in the formal fashion that the report recommended (Clarke 1999).

The subsequent years following the tragic Marchioness incident signalled a definable shift to the PLA's approach to ensuring the safety of navigation. To manage these risks, a Safety Management System (SMS) was developed and is now used to manage, monitor and assess the risks on the River. As much as international trade dominates the type of traffic seen on the Thames waterway, public use of the river for leisure activities continues to grow and these two competing interests for access to the waterway remain the paramount concern. Having to deal with the public perception of risk, and the public opinion on how the organisation is managing them, indicates an emerging reputational risk that requires alternate strategies to mitigate its potentially damaging consequences. For example, the public's expectation to have free access to the river despite dangerous conditions or location, such as in during times of dangerously fast fluvial flows or using stand up paddle boards in areas of high commercial traffic (see chapter 6). In these instances, research suggests there is chance that the PLA will begin become preoccupied with the reputational risks arising from the need to manage navigational safety risks (Power et al, 2009). These issues will be expanded upon in the empirical chapters that follow.

The venerable age of the PLA now places the organisation as an almost taken-for-granted entity in regards to the operation of the ports, river users and vessel traffic and riparian boroughs that comprise its stakeholder base. The PLA's ability to weather a variety of physical, economic and social 'storms' is a testament to its ability to resist and overcome a variety of un-foreseen events. However, how is the PLA now positioned when it comes to a world that demands increased accountability, transparent decision-making models and anticipatory regulatory frameworks that have the ability to not only identify, but also mitigate possible risks to a level that can be regarded as acceptable by a wide range of diverse stakeholders?

4.3 What is the Present-Day Structure and Context of the PLA?

Today, the UK port industry is the second largest in Europe and now handles over 500 million tons of cargo each year and over 60 million passenger journeys (BPA 2015). In the UK, there are three types or categories of ports: private, municipal and trust, of which the PLA is the latter. In being one of the over 100 remaining trust ports that have not been privatized, this type of statutory body does not have independent owners nor are they accountable to shareholders. Instead, the PLA is required to reinvest any surplus back into the port for the benefit of all its stakeholders. Stakeholders are classified into two categories – beneficiary and non-beneficiary. The former represents those who benefit directly from the use of the trust facilities, such as owners/operators of vessels and port employees. The latter represents a broader range of individuals with indirect interests in the port, such as local authorities, Government, special interest groups, and members of the public to name but a few (DFT 2000). Being a trust port thus presents the PLA with a specific set of complex challenges when it comes to managing risk and the societal expectations that comes with an increased level of accountability to wide range of stakeholders.

Under the Port of London Act, the PLA is charged with taking such action as is necessary for the improvement and conservancy of the tidal Thames. To discharge this duty the PLA works to facilitate navigational safety through a range of activities including: the operation of a Vessel Traffic Service – i.e. air-traffic control for ships; undertaking hydrographic surveys; and dredging and providing aids to navigation. The PLA's other responsibilities include the provision of pilotage services, security, managing aspects of the Thames environment and promoting the use of the tidal Thames for trade, leisure and pleasure. The PLA can routinely see over 200,000 passenger vessels and 30,000 trade vessels travel along the river over the course of the year (PLA 2014). Despite this high level of traffic, the PLA reported just 36 navigational incidents on the river in 2013, none of which resulted in a significant impact on public safety or on the environment (PLA 2014).

4.3.1 Organisational Structure and Governance

The internal organisational structure at the PLA is designed to be in accordance with best practice requirements that are detailed within the Department for Transport's (2000) guidance document, Modernising Trust Ports II: A Guide to Good Practice, a document that sets out a benchmark for best practices and provides guidance for English and Welsh Trust Ports on, among other things, reporting, key performance indicators and stakeholder policy. The Guide also sets out the core governance principles of openness, accountability and fitness for purpose as well as outlines how port business is to be undertaken for the benefit of the whole stakeholder community, stating: "In pursuing that target level of return, it is in the interests of all stakeholders that a trust port should set its dues, evaluate its investments, and charge for its services, at commercial and competitive rates, neither exploiting its status as a trust port to undercut the market, nor abusing a dominant position in that market." (DFT 2009:4)

In addition to explicitly providing direction as to the expectations of how and when to engage a Trust Port's community of stakeholders, it also provides direction delivering annual reports and accounts to the Secretary of State relating to harbour and associated activities. In particular, it directs the need to supplement accounts with a 'business review' that should "…discuss the risk of failure of business-critical plant and machinery and the strategy adopted to mitigate this risk, including methods of financing replacement costs" (DFT 2009:10).

Compliance with the guides to good practice is left to the purview of an internal audit committee, with that committee assuming the responsibility for the oversight of implementation and adherence to all other codes of practice within their port. This being expected, the Department for Transport does however acknowledge that not all trust ports will be in a position to comply with every provision.

Overall organisational governance of all trust ports is provided by a Board comprising a Chairman and up to three other non-executive members that are appointed by the Secretary of State for Transport. There are also up to four non-executive members that can be appointed by the Authority itself. In addition to these non-executive members, the organisation can also appoint up to four members of its executive team. The executive team of the PLA is comprised of 6 branch level directors and a Chief Executive Officer. The six functional branches are Navigational Safety, Marine Services, Finance, Environment and Planning, Human Resources and Corporate Affairs.

Figure 4.2 PLA 2013 Organisational Chart

Executive	**Chairman and Board Members**					
	Chief Executive Officer					
	Finance	**Chief Harbour Master**	**Marine Services**	**General Counsel**	**Human Resources**	**Corporate Affairs**
Management	Risk & Commercial Development Property Financial Controller Financial Services	Harbour Master Upper Harbour Master Lower Port Hydrograhper VTS	Marine Services Marine Engineer Civil Engineer Pilotage Ops Pilotage Resources	Planning & Partnerships Legal Adviser River Works Licensing	Health & Safety Human Resources	Deputy Director Corporate Affairs Digital Comms Environment and Management Systems

4.3.2 Present-day Organisational Operating Context

The primary focus of the organisation in today's world is that of ensuring the main shipping channels remain safe and free and clear of obstruction for river traffic. Trade is a major component of this river traffic with many of these vessels utilising the more than 70 individual terminals that line the Thames's banks. Recent research suggests that while the PLA may not employ that many people (345), the Port of London's "… economic contribution to the capital and surrounding regions amounts to more than 46,000 full-time jobs and £3.7 billion to the economy each year." (PLA 2014:28). As noted above, navigational Safety is the first and foremost concern and priority for the organisation. More than eight million passengers travelled the river during 2013, an increase of two million compared to 2012.

A significant source of financial revenue for the PLA is driven by trade traffic. The charges associated with guiding, monitoring, inspecting and licensing the vessels operating on the Thames generates the majority of the £48.7million gross income for the organisation (PLA 2014). As much of this traffic is understandably associated with international trade, fluctuations in a variety of global markets can greatly influence the number of vessels and in turn pilotage acts required to be undertaken in any given year. However, in assessing the level of trade reported in the past 5 years of financials for the PLA, no major fluctuations were reported and it would appear that trade has remained relatively stable during that period. The 2013 operating year saw a total trade tonnage of 43.2 million, which is on a par with the previous two years of 2012's 43.7 tonnes and 2011's 48.8 million tonnes. The majority of this trade cargo is attributable to aggregates, containers and trailers, and oil and crude products, with the largest increase being seen by the aggregate sector climbing by 1.3 million tonnes compared to the previous year. However, in the same year, fuel tonnage saw a notable decline that was due to the closing of Coryton refinery that had been responsible for significant volumes of crude oil. In comparison to the national port scene, the Port of London remains in the number 2 position, just ahead of Milford Haven's tonnage of 41.1 million tonnes and behind Grimsby and Inningham, which saw 62.6 million tonnes pass through their port (PLA 2013).

The river banks of the Thames also attract a wide range of public, municipal and commercial stakeholders that have an equally wide range of expectations as to what constitutes acceptable uses for the river. As such, stakeholder engagement garners a considerable amount of organisational attention. During the time of the study, the PLA hosted three annual public meetings to gain input primarily from residents who lived within the boroughs along the length the river. Each meeting was staffed with a well-rounded representation of senior management who gave presentations that spoke to on-going local concerns as well as PLA operations in general. The organisation is also an active user of social media, such as twitter, frequently posting a variety of notifications, fun facts, and pictures of significant or unusual vessel traffic for the feed's subscribers. It also has comprehensive awareness and education programme, for example, engaging with over 9000 school children through a mobile trailer that is used teach them about personal safety on the river. The

PLA also oversees a variety of sporting events - 84 in total for 2013 - along the river, including the PLA's own Rowing Code competition (PLA 2014).

All of this work and oversight undertaken by the PLA is part of its annual routine operations. However, as with every year, there are some significant organisational challenges, constraints and developments along the river that present challenges outside of the routine operations.

4.3.3 Current Challenges and Issues

Just as any mature port that continues to evolve, the PLA is, and will continue to, deal with significant changes and developments within and outside of its organisation. From an internal perspective, the organisation is faced with an ongoing need to provide the same (if not higher) level of service without compromising navigational safety, despite a considerable reduction of staff. Granted, the smaller workforce of 345 employees is a reflection of the fact that the PLA no longer requires a massive cadre of dock workers, however the threat of downsizing still looms overhead due to the continual advancements in technology. In addition to having to 'do more with less', the PLA, like many other public-sector organisations, are faced with an increasing demand for transparency and the need to empathically engage a diverse stakeholder base, often with varied and competing interests. On other fronts, the demands for leisure users to access dangerous sections of the river or promotional stunts seeking to capitalise on the market penetration presented by high-traffic areas running through central London, the PLA is continually faced with novel and uncertain activities requiring some type of oversight or approval. Any of the above could result in a real or perceived threat to the credibility and legitimacy of the PLA organisation.

Another major consideration for the PLA is that of the National Pilots Pension Fund (PNPF). In the UK, there are currently more than 600 marine pilots, with just under 200 being members of the PNPF. All port authorities in the UK, including the PLA, make contributions to the funds along with the contributions that they collect from the pilots they employ. However, at the time of the study the PNFP was running a deficit nearing £300 million. In a recent court ruling, the trustee of the PNPF has been granted a judgment that will see them able to recover this deficit from a number of port and harbour authorities in the UK, including the PLA. Although this recent ruling will have a much greater impact on the smaller port authorities and their lack of revenue generating capacity, it still poses a significant threat to the overall economic health of the PLA due to sheer number of marine pilots they rely on to service their customers.

From another external perspective, major developments, both related and unrelated to the shipping industry, require the PLA to contemplate the associated likelihood of adverse events transpiring and the impacts of those events may have on the PLA's mandate and organisational objectives. In particular, the recent opening of the massive £1.5 billion terminal known as London Gateway Port at the site of former Shell Haven refinery has the ability to now service the largest deep-sea container ships (See figure 4.3). Once fully operational, the new port could see the diversion of over 3.5 million standard shipping containers away from terminals further along the

river, significantly reducing the number of pilotage acts and in turn, reducing profit for the PLA. This, coupled with other developments such as the adoption of a computer-based port-wide booking system, and a continued reduction of staff ensures that the risks facing, and to be faced, by the PLA are in no-way becoming any less complex, uncertain or ambiguous.

Figure 4.3 Location of London Gateway Port Development

In addition to these very tangible issues facing the PLA, the very nature of the societal and institutional risks posed to the organisation are changing. The role and expectations of regulatory organisations and how they go about the business of regulating is creating new risks for the PLA to manage. As noted above, the rise of reputational risks (Power 2007) is beginning to dominate the attention of senior leaders within the PLA. As a proxy for societal value, the risks posed to the reputation of the organisation are beginning to dominate and influence the decision-making processes. It is no longer simply about preventing a collision on the river but now consideration must be given to what effect that event may have on the reputation of the organisation. Fear of losing stature, or more generally, organisational legitimacy, has the ability to reframe everything from self-seeding trees on the riverbanks to service reductions because of strikes, as being measurable by a highly intangible metric of reputation. This new dynamic between societal and institutional risks is reframing the importance and expectations of ERM within the PLA.

Furthermore, rapid technological innovations are also influencing the nature of risks being faced by the organisation. The increasing size and speed at which large trans-ocean vessels are able to operate, coupled with an increasing level of sophisticated navigational technology aides, means that the margin for error when navigating the Thames estuary have been substantial reduced. At times vessels can actually be operating within inches of the shifting riverbed. This is in stark contrast to the approximate hydrographic measurements of the pasts which would have much larger tolerances for error built into them. This increase in which the speed of operations are conducted is further fuelled by an increasingly demanding logistics chain that requires shipments to be rolled on and off transports as quickly as possible. Small delays in shipments being received or

loaded can create significant issues downstream and it may well be nothing more than a matter of time for these extreme operating parameters to expose system shortcomings in a potentially disastrous manner.

4.4 What Was the Status of Risk Management at the Time of the Research Study?

As noted in Chapter Three, the PLA's review of its formal risk management program provided an excellent opportunity for the researcher to explore and further the understanding of the PLA's risk management practices. In speaking with the newly appointed head of risk management, it became clear that the organisation was experiencing an increasing demand for risk-related reports, presentations and management material that was attributed to the PLA's non-executive Board members. The Chief Executive Officer, along with executive board members, had consequently become increasingly concerned with how the organisation would respond to these demands, as well as the ramifications resulting from any sub-standard practices. Despite the fact that many in the organisation felt that risks were already being managed adequately, staff overall expressed little to no concern with the adoption and operationalisation of an enterprise-wide approach to managing risk. If anything, the new approach was seen as an 'evolutionary step' rather than something that would replace or challenge existing ways of operating in that they positioned as an expansion of the existing system (i.e. Managing Risks to Navigational Safety) into new areas of the organisation.

4.4.1 External Influences on Risk Management

Much like any organisation, public or private, the PLA is no different when it comes to the meeting the ever-growing institutionalised expectation to formally manage risk. For example, there are already various requirements for port authorities to adopt best practices for risk management practices, as suggested by the Department for Transportation's 'Modernisation of Trust Ports'. Another example being the fact that since 2000, all port authorities have been required by the Port Marine Safety Code (PMSC) to develop and implement and safety management system that is explicitly designed to manage the risks posed to navigational safety.

As with all organisations operating in the UK, a host of 'non-maritime related' acts and legislation also influence the various management systems that the organisation must maintain. For example, adherence to the Health and Safety at Work Act 1974 and its associated reinforcing legislation - the Management of Health and Safety at Work Regulations 1999 - requires the organisation to have a formalised Health and Safety Management system in place. Specifically, organisations such as the PLA (i.e. those that employ more than 5 people) are required to have health and safety policies; risk assessment, monitoring and control measures; and, instructions and training for employees in the workplace and how they are being protected. Similar external expectations exist for the administrative functions of the organisation when it comes to managing operational, financial and environmental risks through adherence to international standards such as

ISO 9001:2015 standard for quality management systems or ISO 14001:2015 for implementing environmental management systems.

Over time, many of the above expectations had been 'hardwired' into the routine operations of different departmental areas. Indeed, as will be shown in the empirical chapters, many of the employees felt that they had been informally managing risk since the formation of the organisation back in 1909. Minimising the likelihood of failure and ensuring that work was completed safety, on-time and on-budget was something that was simply part of the organisation's strategic and operational goals. The incorporation of the above noted legislative requirements, along with others, were referenced in a lengthy list of internal policies that all explicitly stated the need to reduce threats and consequences arising from the mismanagement of key organisational functions. PLA policies were in place for quality, drugs and alcohol, data protection and port security, in addition to the areas noted above such as health and safety and environmental issues. However, as integrated as these risk mitigation measures were, the use of risk-specific tools, technologies and language was something that the expanding formalised programme would soon be applied to.

4.4.2 Internal Influences on Risk Management

The current inception and implementation of the risk management policy at the PLA is not the first attempt to formalise an enterprise-wide approach to managing risk. In the early 2000's, a rudimentary risk management program was launched that amounted to little more than a table on a single page, which comprised a list of 10 risk statements and their associated grading of high, medium or low. The PLA's then head of the Legal Counsel was responsible for assembling and updating the list, which was primarily achieved through routine and ad-hoc interactions and discussions with senior management. The resulting list then served to provide assurance to the PLA's board members that risks were being identified and responded to (i.e. managed). Acknowledging both the shortcomings and lost opportunity with such a limited risk management program, and supported by a recent influx of new board members that carried increased expectations as to what constituted a robust risk management approach, the PLA responded by enlisting the aid of an external consultancy to assist in strengthening and expanding the risk management programme.

The newly operationalized PLA risk management framework and associated policies were by far the most frequent reason staff felt the need to formally account for managing risk. This change was often articulated as being driven by the PLA's Chief Executive, as well as members of the non-executive board, as described by the following senior manager:

> *"In this year, we have got a shift from [employee name] to [employee name] and the CEO is very, very 'environment orientated' so I think there is also a shift in people's attitudes. They realise that the chief's execs interested in it and that he has an understanding of it and in that unspoken support people are starting to realise that we do need to make sure everything is good and that and I think*

that is definitely a positive step in that I think corporately we have probably left ourselves a bit at risk previously." (P36)

As a mechanism of providing assurance to the Board, the risk management policy outlines the expectations of staff tasked with managing risk at the PLA. In regards to managing the risks to navigational safety the newly developed risk management policy document provides the following direction:

"Risk may be defined as uncertainty of outcome presenting either positive opportunity or negative threat. Invariably some risk must be taken to achieve our objectives and effective risk management will establish whether a risk may be avoided or reduced to as low as reasonably practicable (ALARP). Put simply a negative risk is anything that threatens to prevent the Port of London Authority (PLA) from achieving its regulatory responsibilities or business objectives."

Although there was consensus among the Board members about the need for a more formalised, expansive, and robust approach to managing risk consistently across the organisation, it was often noted by executive management that the push for expanding really came from one Board Member in particular. Unsurprisingly, the Board Member of note had just undertaken a similar exercise in the organisation that they worked in and felt that the PLA stood to benefit greatly from following suit.

As noted above, the PLA had contracted the aid of a well-established and respected international management consultancy to develop and implement an enterprise-wide approach to managing risk. This consultancy had been tasked with modifying their existing 'off-the-shelf' risk management protocols and techniques to accommodate the PLA's needs. Specifically, they were tasked with developing, in conjunction with the newly assigned Head of Risk Management, a risk policy, a framework, a set of risk registers, and an assessment methodology. They would also be available to conduct initial training and workshops with the newly created risk committees in order to help staff gain familiarity with the new risk management programme.

The initial enterprise-wide programme consisted of a set of working documents and a selection of committee members. Specifically, there was: A Risk Management Policy; a draft Risk Statement and Philosophy; a risk Committee Terms of Reference; three internal committees; and, three permanent risk registers that housed 'internal', 'external' and 'operational' risks. Additional risk registers for more complex/dynamic issues, such as large one-off events like the Diamond Jubilee River Pageant or major on-going projects like the newly developed London Gateway Port, were to be developed and utilised on an ad-hoc basis. At the time of the researcher beginning the collection of primary data, three of the four committees had undertaken the inaugural meetings and had begun to populate their risk registers. Explicit scoring mechanisms had yet to be developed and introduced by the consulting firm and the emphasis was being placed more on familiarisation with basic risk concepts (i.e. likelihood x consequence associations), rather than debating the accuracy of any risk ranking matrices. As the roll-out and introduction had just begun, any heavily

institutionalised practice of enterprise-risk management had yet to take root and staff responses to the professionalised conception of ERM were still seen to be relatively new and fresh.

4.5 Chapter Summary

The PLA is in no way a newly formed organisation and has over the years been faced with a wide range of challenges and adversity. The current focus of the organisation is that of one faced with increasing levels of uncertainty and an expectation that any uncertainty will be efficiently and effectively. The Board expects that an explicit and organisational-wide risk management framework be operationalised. This request is being framed by the staff as a response to the spend effort on the things that really matter (i.e 'big' failures) and at the same time the staff must differentiate ERM from their pre-existing efforts to keep people and ships safe. There are increasing expectations of the public to be engaged when it comes to the decisions being made about how the river kept safe and environment protected. Technology is increasing steadily and the PLA has often struggled to keep pace with the increase size and speed of ships. It really is not surprising that the Board is seeking further insight to just what the PLA is doing in regards to achieving its strategic objectives.

The following chapters will now present the empirical data that was acquired through the semi-structured interviews, document reviews and participant observations. Each of the chapters focuses on a specific functional area of the organisation and explores how the introduction of the ERM program plays out on a cultural, operational and structural dimension. It views these dimensions through both a substantive and a symbolic lens in order to gain a well-rounded understanding of the micro-dynamics of implementing an ERM framework. Chapter 5 presents the findings of the administrative areas of the organisation, an area perhaps least familiar with overtly or explicitly managing risk, but perhaps most familiar with audit style accountability frameworks. Chapter 6 moves on to explore the empirical data generated by a review of the Navigational Safety area of the organisation; an area with a deeply engrained sense of collective risk management practices, albeit externally focused on societal risks and with its own set of entrenched tools and techniques. Chapter 7 is the final empirical chapter and is focused on the Marine Services Department. Although this area of the organisation also had a long-standing relationship with managing risk, its focus was much more from the perspective of managing risks to the safety of employees and organisation rather than the public or commercial operators. Chapter 8 provides a discussion of the previous three chapters' findings, returns to compare these findings with the relevant literature. Chapter 9, the final chapter, presents a summary of the findings, identifies practical implications generated by the study, and, outlines possible opportunities for future research.

Chapter 5 Administrative Services

5.1 Introduction

For the purpose of this research study, the administrative function of the organisation is associated with the activities and focus of the Human Resources, Public Affairs, Legal, Financial, and Information Technology departments at the PLA. The objective of this sub-organisational unit is to provide support to other areas of the organisation and ensure that key functions not only have access to the resources and technology to enable them to undertake their roles but also to handle the administrative components such as billing, training, and communications. These administrative areas are common to most organisations, is handled through a bureaucratic approach to problem solving and is primarily transactional in nature.

The types of issues facing this area of the organisation originate from both internal and external sources. Unlike the navigational safety and marine services departments, the issues that administrative services deal with are relatively slow to build up and unfold in a less sudden and abrupt manner. The decline of a major customer's economic viability or the on-going reduction of staff is not something that would typically transpire as 'sudden' event, as opposed to the collision or grounding of a ship. However, a failure in this area of the organisation can be as severe, if not more so, in regards to the overall health of the organisation. There is not much they can do to prevent the external types of events that threaten the administrative services, so emphasis is naturally placed on mitigated the consequences as means to reduce the impact of any failures.

In their supporting role, the administrative areas of the organisation are also focused on how possible failures, like financial shortcomings or the loss of key staff, impact the PLA's ability to carry out its statutory function of navigational safety. Much of this type of work happens in the background of the organisation, and employees see their function as one that should integrate into the PLAs primary functions.

As the number of stakeholders and demands for uses of the river continue to increase, the image and reputation of the PLA is becoming more important. They are finding themselves in need of balancing competing interests as to how the River should be used. In the past, the primary interaction with its stakeholders would transpire through the navigational safety team and its issuance of Notice to Mariners, official channels and methods of communication dedicated to interacting with stakeholders on specific issues is a relatively new development throughout the Ports 100 plus years of operation. The PLA's participation in external groups has them currently engaged in 16 consultative and liaison committees that are led by the PLA, as well as participating in over 90 external bodies and associations. The importance of creating and maintaining strong social connections with the PLA's local community of stakeholders is a key resource and tool in reducing the level of uncertainty associated with achieving their organisational objectives.

5.2 Cultural Dimensions

In comparison to the high-stakes and dynamic arenas of the Navigational Safety and the Marine Services departments, the world of financial reporting, succession planning, and pensions funds are comparatively less sensational with significant events being rather slow to unfold, and seen as somewhat inevitable. Operational failures in the world of administration were more aptly characterised as errors rather than those of 'catastrophic or major' which categorised the risks in the ERM register. Culturally, it was a well-entrenched understanding that navigational safety, and ensuring the continued economic viability of the river, was the primary focus of the organisation. As such, the role of the Administrative Services was supportive in nature and that their work, albeit important, indirectly contributed to the achievement of the primary mandate areas. This supportive relationship reinforced that although the majority of the administrative work transpired at a desk and 'on paper', it was still linked to the completion of the organisation's mandate. If an administrative risk was to be realised, it's consequence would be often linked, or emphasised, by its impact to group external to theirs. This externalisation of risk also held true for the threats and sources of failure, with many risks being seen as out of the groups control or direct influence.

The following section explores how the cultural factors of the Administrative Services area of the PLA influence the execution of the newly implemented risk management function. Up until the implementation of the risk management framework, the concepts of risk and uncertainty had not played a dominant or explicit role within the majority of this area's day-to-day work. For the most part, the staff in the roles of Human Resources, Finances, and Legal for example, were used to planning on relatively predictable planning cycles and for the most part, the risks they chose to capture were representative of on-going issues that were well understood and being managed through existing practices. The following two sub-sections demonstrate how the concept of uncertainty intersected with this area's understanding of the limits of routine control and what the function of Administrative Services should be expected to achieve given their role in the organisation.

5.2.1 Fatalistic Attitudes and Externalising Threats

Predictability and routines comprised the majority of day-to-day work that made up much of the work processed through areas like Human resources, Information Technology, even Public Affairs, for the most part. Uncertainty in the everyday workplace had been minimised through bureaucratised life, the processing of invoices, mandatory safety inductions, new employee on-boarding or routine website maintenance, and served to establish a predictable cadence to organisational life in the Administrative Services area. As such, the idea of catastrophic failures suddenly arising from a misfiled report or delayed communication was not something that participants expressed as being something that had required explicit attention or oversight and or for that matter would be subject to additional measures of mitigation, as noted by the following respondent when questioned about risks that they have to manage:

> *"there is no real plan in place to deal with it, I mean we have a lot of overhead with all the people in this organisation, so if you suddenly need less pilots, it is something you can address reasonably quickly even though there are costs involved in that… and that's why we have contracts for new people" (P29)*

Here, the idea of a loss of key human capital was something that was framed as being out of their control and, in the unlikely event that it did happen, it could be easily dealt with by a simple shift from permanent full-time employees to one formed through contracts. There is no real acknowledgement of the implications of what the 'costs' would be outside of being suggestive of minor monetary implications. The relationship between threat and impact are simplified and stated in a linear relationship with no measurement of the likelihood or consequence of the event. For the most part, when respondents in this area spoke to the risks they managed, it was simply conceived of as an unwanted impact or something bad happening:

> *"…if someone is going to get hurt in a big way, if we are going to damage our reputation, cost us something in money terms, those are how we see risks" (P29)*

In framing risks this way, the linkage or relationship between hazard and value, and the ability to influence the relationship, is somewhat compromised. As the use of calculative frameworks that utilise measures of likelihood and severity was not something that they had been required to incorporate into their existing practices, a sense of being at the whim of external forces became apparent and as such the source of failure often was seen as being external. For example, the likelihood of a failed audit and the possible impacts of that failure was not the type of failure to be recognised by the accounting group. Threats were time and time again seen as intangible forces lurking outside of the organisations walls, such as economic pressures, cyber-saboteurs, or legal challenges. As such, the impacts and threats that the administrative services were tasked with addressing were often much harder to foresee and for that matter measure; quite different to the easily observable nature of adverse events associated with ships on the river or the inherently dangerous work of maintaining industrial equipment. This lack of physical impacts in relation to what was primarily of value to this area of reinforced the political and social elements of the risks they faced and only served to increase the perceived uncertainty and uncontrollability of threats and impacts:

> *"I think if we only had London then our mission statement would be much more focused because of the type of people we are dealing with, the mayor's office, the riparian boroughs, government, you know all those political things that influence what you do. And that's something that I am acutely aware of working the public sector. Everything is very much policy driven, and that policy is usually determined by either government or someone else. You have to pull it down and make it work. Here we have got a situation where we have got a very political environment upriver and then the business end down here and all the problems that both those things do, give or bring to the organisation" (P2)*

A review of the internal risk register reinforced a fatalistic attitude towards the types of risks the administrative area of the organisation was tasked with managing. The 'Internal Risk Register' was focused on direct impacts to the organisation and identified either the CFO or Director of Human Resources as being accountable (i.e Administrative services), and was comprised of 27 line items or risks. These line items were broken into four different sections based on the areas the risks were seen to impact: Loss of Employees; Significant Financial; Reputation; and, System Malfunction/Failures. The line items under each section were consistently broken out by columns into a title, description of the risk, pre-treatment risk assessment of probability multiplied by severity, a list of existing treatments, a post-treatment assessment of risk, a column reserved for reputational impact, suggested further treatment, and lastly a risk owner. Of the 27 risks that were identified, post assessments suggested that 17 were green or low, seven were yellow or medium and three remained high or red. The three remaining high risks were attributed to industrial action under loss of key employees, loss of major revenue source under financial and website failure due to denial of service attack from an external source. Out of the 27 line items listed, the failure or threat identified was only framed as being directly attributable to an internal source in two cases; employee fraud (Financial, and a PLA sponsored event (reputational). Two line items in the 'Systems Malfunction' section referenced administrative or operational systems failing but did not attribute the cause to being internal in nature.

In addition to the register listing risks that were dominated by issues outside of the control of the organisation, when ranking the pre- and post-mitigation assessments of risk, the influence of their controls on the 24 of the 27 line items were scored as either having no effect on the risk or reduced the probability or severity ranking by one point. The only line items to see a significant reduction in the scoring came from the System Malfunction section where the probability of a 'total external power failure resulting in the loss of key systems' was reduced from four to one due to an external generator providing power for three to seven days. This inability to considerably impact the pre-treatment assessment of risk reaffirmed the understanding that despite the staff's best efforts, the overall control applied to a risk would be limited at best. This begs the question of how can members of staff be held accountable when they 'clearly' identified that their current process have little impact on these external sources of probable failure?

However, from an alternate perspective, a single point reduction in either or both of the probability or severity rankings did significantly adjust the overall optics of the register when viewed from a color-coding perspective. As only three colours (red, yellow and green) were used to visually depict the 'risk levels' the efficacy of controls could be judged as being relatively robust in that 11 of the 17 yellow risks were moved down to green post-mitigation, and six of the nine red or high risks were moved down to yellow. The often-significant implications of subtle adjustments in probability and/or severity are indicative of any five-point matrix style approach to assessing risks. However, the PLA had yet to establish any consistent criteria as to what a 'three' on the probability or severity scale actually meant. So, this in essence becomes a game of optics and judgement in that

overall risk-reduction becomes less about demonstrating control effectiveness and more about 'pushing issues into the green' to get them off the radar or for that matter, and perhaps more importantly, retaining a red-ranking and focusing the attention of upper management and the Board. An issue that gained increasing significance when viewing the functional and structural implications outlined in the subsequent sections of this chapter, yet still had significance in regards to suggesting the illusion of controllability and in turn, the performance (i.e efficiency and effectiveness) of organisational activities.

5.2.2 Creating an Illusion of Control

As much as the fatalistic culture of the administrative services attributed negative impacts as lying outside of their direct control, staff were still realised that they expected to demonstrate some ability to control the threats they identified in the register. As noted above, the power of combing the scores of probability and consequence, pre- and post-mitigation afforded staff the ability to linking existing efforts to minimising adverse events and at the same time clearly defining the limits of their spheres of influence. As the assessment of the probability and severity of the risks was driven solely by the application of professional judgment and expertise, rather than actuarial data, participants of the risk assessments were at liberty to assign highly subjective scores to either factor. However, as the scoring of risk factors transpired in a group setting, several respondents spoke to how polarised assessments of frequency or likelihood would be challenged and could be a reason for so many of the internal risk register risk scores residing close to medium, with the severity or probability of a line items assessment rarely being more than one point apart. This is significant in that as the register essentially served as a 'baseline' assessment moving forward, the need to justify control effectiveness would not require validation through anything more than subsequent 'professional judgment', as explicit metrics or key performance indicators were not identified or attributed. Essentially, outside of substantial and tangible impact or 'realised risk', controls could be seen as operating at an adequate level of performance.

In addition to the lack of explicit performance metrics, the exercise became one more informed by gut reaction and perceptions over that of quantifiable facts or observable frequencies. As the academic debate about what actually constitutes a real risk in the first place continues to churn (see Slovic & Peters 2006), the subjective assessments as to what may or may not impact the PLA's ability to achieve its organisational objectives was, at times, clearly influenced by biases and heuristics. For example, in speaking with senior members of HR, the application of availability heuristics in regards to the assessing the likelihood of the loss of key organisational due to a substantial lottery win or pandemic was a very real concern:

> *"…whereas before I think people would have treated the idea of a group of staff winning the lottery and leaving as quite a frivolous thing or the chance of a flu pandemic or something along those lines, that would be treated quite almost dismissively and what you see now is a shift over to oh yes if someone dies or if*

two of the executives get killed in a car crash how would we deal with that? Whereas before, oh that's never going to happen. So there is now an understanding and I think there has been…"(P2)

The ability to actually influence the likelihood of these types of rare events occurring are highly debateable, let alone the ability to *measure* any type of reduction effort. As such, logic would suggest that any reasonable efforts to influence the risk calculation would have staff focus minimising the impact/severity of such an event. However, the risk register line items that referenced a pandemic or syndicate lottery win, actually did see reductions in the likelihood of the event transpiring as well as the impact of the event itself on the organisation after mitigation had been applied. Only after further probing was it discovered that the individual responsible for the inclusion of 'lottery syndicate win' on the register had actually incurred this event in a previous role, demonstrating the application of an availability heuristic – where an individual allows a recent notable event to influence (i.e. increase) the probability of the same even transpiring in the future. A similar argument of the infiltration of heuristics altering assessments can be said in the case of a pandemic. Here, the inherent 'badness' (high consequence/low benefit) of the event is allowed to amplify the scoring of the overall risk (likelihood and severity) associated with the idea of a pandemic transpiring. The significance of these heuristic in relation to creating the illusion of control is in that amplifying highly unlikely events in which control effectiveness is either hard to establish in the first place or difficult to measure when once in place, works to ensure that staff can remain relatively that their efforts to manage risk will remain relatively unchallengeable.

This strategy of including highly unlikely events that suggested controls were working due to the absence of failures, was juxtaposed against another emerging theme in which staff identified events that clearly lay outside of their direct influence but had a much higher likelihood of occurring, if not already impacting the organisation. This time, by selecting risks such as loss of major customers, one that was clearly driven by factors far outside of the PLA's realm of influence, a fatalistic attitude was assumed by staff in which they 'braced for impact', rather than assuming efforts to minimise it. If this truly is the case, then it is simply a matter of time before the PLA incurs a catastrophic loss that would bring into question the future operation/viability of the organisation. The following is an example of how staff would frame an event as being somewhat inevitable and that little can be done other than maintaining relationships that might serve as an early warning:

"It does expose us but there is only so much you can do to that [financial] sort of risk, you have got be able to keep aware and know what is going on and keep in contact with the customers so that it doesn't' come as a huge surprise hopefully but they are third parties and they don't have to tell us anything so it can always come as a surprise but hopefully we have the relationship that they feel that they can tell us before it happens." (P29)

Using the risk register to log this inevitability and justify the current 'controls' of maintaining positive customer relationships, little thought or effort was required to suggesting ways in which the impact of a customer loss could be minimised. Putting plans in place now to deal with these

apparent certainties would only make sense, even if it was only to model out different scenarios and timeframes, the organisation would at least have some sort of consequence management in-place to minimise the short-term implications of major customers pulling out. As this loss of customer has actually transpired *multiple* times in the past, and the PLA is still completely viable, then the scores in the register simply do not add up. But rather, as it stands, if this happens again (and it will) and as long as 'relationships with customers were maintained' no one is really held accountable for the impact being realised by the organisation. This fatalistic attitude towards risk was also assumed by those in the IT department when speaking to the major failure of the website from something like a 'denial of service attack', also attributable to an external source. The risk again appears to be amplified by professional judgment, as captured by the following interviewee statement:

> *"So, they relate really to the hacking side of things and coming in and from the outside, and I should qualify, that it is not really hacking that worries us most and this is more in the website arena but someone gets in and modifies something that puts out misinformation. It hasn't happened before but reputation is quite important and I think it is perceived but cause these days a lot of have been hacked and interesting words put on there and probably in the grand scheme of things it would be very obvious that someone was trying to get their message across – so you can never say never on that side of things because there are vulnerabilities being found all the time" (P26)*

In one sense, it is understandable that an area of an organisation which is designed basically to support and respond to other areas of the organisation would default to seeing uncertainty as being outside of their control. However, as the idea of risk management is founded on explicating the ability of management to influence the likelihood and severity of future failures, the culture of the administrative services was forced to come face to face with reconciling their actions with the possibility of failure. It was apparent that the employees were well aware that identifying a risk meant that they would ultimately be responsible for how it played out. As doing nothing was simply not an option, the next best thing was to ensure their ability to truly anticipate and respond to the 'unknown' was to symbolically acknowledge controls that would be hard to measure, implement and, in the end, be held accountable for.

5.2.3 Section summary

Faced with a new and somewhat foreign management practice, the staff of the Administrative services area of the PLA assumed a fatalistic attitude towards the risks it faced. A cultural conception of external forces dictating successes and failures was reinforced by participants attributing uncertainty to threats that lay outside of their immediate control. In order to depict these relationships, the employees utilised the external risk register to validate their conceptualisations of risk. Risk descriptions allowed for threats to be clearly defined as being attributable to sources such as pandemics, cyber-attacks, economic downturns and acts of bribery. At no time were the short-coming of staff skill or expertise identified as possible sources of failure that could impact the achievement of internally focused objectives. If something was going to go

wrong at the PLA it would most likely be due to something that was simply outside of the control of the PLA's administrative staff.

However, this inability to directly influence the probability of adverse events directly impacting the internal operations of the PLA did not alleviate staff from their responsibility to demonstrate that risk was being appropriately managed. As noted, efforts to identify and link explicit controls with external threats became a symbolic exercise that framed the relationships in ways that ultimately satisfied the ideology of risk management rather than actually change the way they actually went about their existing work or routines. However, the risk management practice did present some substantive changes to the organisation, if not culturally but most definitely from a structural standpoint, as the following section will now begin to explore.

5.3 Structural Dimensions

The following section explores the research findings in regards to how the ERM program interacted with the structure of the organisation and any impacts to the relationships between different departments of the PLA. Historically, the administrative areas of the PLA assume a supporting role in regards to the achievement of the primary mandates of navigational safety, promoting the use of the river for trade and travel, and enhancing the environment. Their awareness of the importance of the organisation successfully achieving these mandated objectives were no less apparent than those actually charged with upholding the by-laws or piloting ships, but as the previous section identified, failures and threats would initially be realised by the organisation rather than the public or industry. Despite the direct impacts to the organisation achieving its primary objectives, the hierarchical nature of the Navigational Safety under the command of former Naval officer and the sheer size of the Marine Services department meant that those working in supportive administrative roles characterised themselves as being lower down on the decision-making ladder.

This administrative arm of the organisation could also be classified as the most heterogeneous, in that although each group within it was primarily seen in a supportive role and although bureaucratic, the nature of their work was quite diverse. Unlike the Navigational Safety or Marine Services divisions, those within the administrative areas saw a much wider array of possible receptors for the risks they managed. Where the alternate areas of the organisation were focused on protecting physical assets such as PLA infrastructure or the safety of people using the river, Administrative Services considered a range of human, financial, legal, reputational, and technological capital. Each of the areas responsible for these sources of organisational capital also brought with them specialised skillsets that were relatively non-transferable outside of their specific discipline. This was significant in that Administrative Services contained individuals who were less likely to make lateral moves across the operational areas of the organisation and also, it was an area of the organisation which had a routine ability to attract individuals outside of the competitive maritime profession.

Lastly, this area of the organisation had the least familiarity with formally managing risk, a function that had up until then been housed firmly under the watchful eye of the Chief Harbour Master. Positioning the function of risk management under that of the Chief Financial Officer presented the organisation with a diffusion of responsibilities in that Navigational Safety had always been the main driver and user of risk management. This shift afforded Administrative Services of a substantial opportunity to develop and demonstrate an important functional attribute.

The following section explores the implications of operationalising a risk management framework from a structural point of view. The findings speak to how the creation of this practice provides the administrative areas of the organisation a chance to reshape existing relationships with other areas of the organisation. Substantive changes arrived in the formation of committees, amassing expertise and knowledge and developing lines of responsibility and accountability. Additionally, alternate findings suggest how the ERM program enable this area of the organisation to reinforce and emphasise existing relationships and elevate the importance of the administrative functions through descriptions of risk and extrapolating the impacts of failures to seeming unrelated areas.

5.3.1 Standing Up a Risk Management Infrastructure

Organisationally, the function of risk management has been seen as being positioned as either a centralised or decentralised function (Smallman 1996). In a centralised model, the majority of risk management work is housed within a specialised department, their sole function revolving around the ability is to identify, analyse and control risks for the whole organisation. Conversely, in a decentralized model, the responsibility for risk management is spread across all the departments and is representative of the PLA's explicit statement in their risk management philosophy of 'risk management is everyone's responsibility'. Although risk management was to be a shared responsibility, the coordination and oversight of its operationalisation was relegated to a single individual. Despite the familiarity and convenience of pre-existing risk management tools and process elsewhere in the organisation, the overall risk management function was still seen best to reside under the purview of the Head of Development, reporting to the Director of Finance. As often observed playing out in the private-sector, tasking the CFO with standing up the risk management function was seen as a natural and appropriate action. Selecting an individual within the organisation to 'champion' the function and be able to successfully operationalise the practice was something that appears to have driven by a very specific set of characteristics.

According to the individual who had been identified as being the most appropriate individual, she felt it had to do with the length of her career at the organisation and her ability to build relationships with internal and external 'customers'. Her 22 years with the organisation saw her starting in the finance department as an accountant, involved in payroll, internal audit, etc. and rotated around all functions of related to finance until finally settling in the invoices section and focused on learning about revenue sources. It is here where she felt she began to build stronger

relationships with customers. From this position, she was afforded the opportunity to aid in the conduct of a variety of organisational studies, such as on exploring the pilotage function. It was felt that as the PLA's Pilots serve as a frontline interface, the PLA should be much more aware of the role they played in interacting with their primary customers, the captains controlling the vessels that comprised the Thame's trade traffic. It was significant in that the study explored how the function operated, was funded, what the covering costs were, rostering systems, and basically how best to optimise the pilotage function, with one of outcomes being recognition that they lacked an official interface with customers. In the past, the roll primarily was tasked to an Executive Committee member who, when available, marketed the Port of London to a wider 'public/political' audience, it was felt these activities were somewhat wasted in that the PLA felt it needed to work more directly with the terminal operators themselves. This change in how the organisation related to some of key stakeholders, shifted the focus to helping the terminals market their services and attract international trade. As the Corporate Affairs team was responding more to the 'public/political' stakeholders along the river banks rather than purely promoting the port, a new role of Commercial Development Manager was created, and is the role she remains in. The primary role of this position is to act as a facilitator between customers and port services. In doing so, she provides local knowledge and "acts as a conduit" with the ability to offer favourable options for new customers, engage in annual negations with existing customers. The current goal being more about retaining and maximizing existing customers rather than expanding to new trade markets, they look to enhance and develop what the terminals have attracted – an interesting take in reflecting on the previous section and the limits of control in managing uncertainty.

The characteristics of the individual tasked with coordinating the operationalisation of the risk management framework clearly demonstrated how important the notion of strong internal and external relationships is in the PLA's understanding of accessing information on uncertainty. It was her understanding that the board was uncomfortable with the risk management process but were not sure why – it just didn't sit well with them. Their current approach consisted of a single risk management corporate register that was used to periodically report to the board and they wanted a person to review the whole PLA and how risk was managed. With this as a key objective, she was put forward most likely by the Executive Director of Finance. It was deemed that she had the social connections required to reach across the organisation and that she is broad-minded and open to change. It would be required that she was sensitive to how the politics plays and that she would remain in touch with the way they work day to day. It became obvious by these descriptions that for the PLA, risk management was not about hard-core analytics, quantitative accounts of failure, or technically sound assessments but rather that it be undertaken more as an 'art of negotiation' that must be both flexibly interpreted and applied.

However, in these early days of the ERM program, it was very apparent that enthusiasm and support of that of ERM skill or aptitude was also a priority. Awareness and receptiveness to participate in the newly formed risk committees was an initial measure of the program's success and

for the vast majority of participants interviewed, the program was seen as benefit and positive addition to organisational life:

> *"I was asked to join the internal risk committee… we all sat down, talked about the risks. What the risks were, and as the time has gone we now have a risk register that actually goes through what the risks are, we've graded the risks, like a traffic light system, the risk before mitigation, the risk level after mitigation and then if there is further things you can do, so that risk register one I am on is pretty robust now, we have been through that numerous times and every time we meet we look and see if it is still relevant, so everybody is thinking about risk much more than they ever were" (P29)*

Tasking the operationalisation of the ERM program at the PLA to a single individual was a choice driven by opportunity and constraint. On one hand, the Board was well aware that a significant amount of expertise had been amassed by the operationally focused areas of the organisation. Yet, these risks were for the most part being demonstrated as under control, it was the darker corners of the organisation that saw less tangible risks amassing that could benefit from explicating their decision-making processes. And on the other hand, there were few other areas of the organisation that could demonstrate the social connections to all of its internal and external stakeholders. If managing risk was to be truly a holistic practice undertaken by all, then the bearer of change must be able to understand a wide range of organisational relationships, cultures and functions if they are going to be able to adapt and modify the practice accordingly.

5.3.2 Linking and labelling: Accessing the Power of a Risk

From an organisational perspective, the constant pressure to accomplish more with less is not something unique to the PLA. Although one of the core tenets of ERM is its ability to allocate scarce resources to where they may be most effective in reducing uncertainty or adversity, it also served as a symbolic means to communicate the essential nature of the work undertaken by Administrative Aervices. Although there was never any indication from any part of the organisation that the function and expertise housed within the administrative services was in any sense less important or second-rate, the simple fact that the organisational mandate explicitly states that the safety of navigation is job one. As such, attempting to draw attention to the need for employee wellness programs or timely financial reporting, presented the staff, at times, with a challenge. However, with the introduction of a system that was actually focused on levelling the playing field in regards to how various issues could be driven down to some type of a common currency, the ability of ERM to explicate causal linkages became of significant interest to those seeking to elevate their work within the organisation.

As much as the register served as an extremely explicit and blatant explanation of what could go wrong and what the implications of whatever went wrong would be, a number of staff members in the administrative services used the language of risk to link, and also liken, their work to that of the 'higher priority' tasks of the other two sub-organisational units. In reviewing the transcripts of numerous participants, how they talked about the risks they managed became just as interesting as

what risks they chose to manage. For example, the following response from a participant in Corporate Affairs speaks to how their work must integrate into other areas of the organisation:

> *"The way I see the role of the corporate affairs team is to be completely embedded within the operation of the organisation so it isn't a bolt on bit of the organisation that does pink fluffy PR, organise nice luncheons and that kind of thing it is something that genuinely works with the operational side of the business, understand where the issues are coming up… and manage the communications around those issues to try to ensure the reputation of the organisation isn't damaged." (P8)*

For operational areas to manage their issues effectively, the PR function is integral to achieving success. There was a need to link the efforts of different departments to the 'greater good' and that it wasn't enough to achieve departmental objectives but success was better communicated by demonstrating how their success meant success for those managing mandate level risks. As such, different areas of the organisation ensured that they were able to tangibly link the work they undertook with the higher profile areas such as the navigational safety work of the organisation.

Not only was it seen that linking one's work to the higher profile work demonstrated the need for that administrative function:

> *"providing that something is followed through, I think it is helpful to have it set out in a lot of these cases, because I have been concerned for some time that, for instance with the environmental information regulations people don't realise within the organisation how vulnerable we are. So provided that is taken through and that the various managers pick up on these things and hopefully it gets some more publicity within the organisation because it has been recognised on these particular registers as being important" (P23)*

Another way the new policies and processes for managing risk interacted with the structural arrangements of the PLA was through the process of framing or labelling things as a risk. As with any organisation, there were issues that fell into 'grey' areas as to who was responsible for dealing with them, in that there was differing opinion on either what the problem was or how best to solve it. As such, this resulted some employee or area of the organisation most likely having a less than favourable opinion of the required resolution of the issues. In order to navigate these internal arrangements or relationships the word 'risk' became a very useful and powerful tool, as demonstrated by the following account of assigning responsibility for 'after-hours' activities:

> *"… we have a rowing team and we have about 20 people and we are not just people from the PLA there are external people as well. We do races and we do training two or three times a week and there is a very real risk that you can drown. So, it was identified fairly early on that plus other sport and activities, football and golf among employees, that was going on that we exposed to possibly being sued if anybody did get hurt in anyway. So, we saw that we were very vulnerable, we put in place a committee to deal with sports, we now regulate it, we have put in place risk assessments and the biggest mitigation is I put in place insurance cover in case we do get sued. So, for something that has been going on for ever in the organisation, all of a sudden it was realised we were vulnerable, we could*

be sued and thankfully there has never been an accident but the other day the whole rowing crew went in the water and had to be rescued so it can happen. And we are now going to most likely go one step further and set it up as a separate organisation as a sports club so that we are removing it from the PLA so it would be the club that is being sued and not us"

The above is an example of how something that had never really been 'owned' by any person or area of the organisation was, by being reconstituted through the language of risk, as a managerial object that posed a legal threat, could be processed and subsequently transferred outside of the organisation. There could be little push-back from those actually participating in the activity in that one, it was still 'allowed' to transpire and two, by the framing it as a legal issue few, if any, staff had the technical expertise to object. Another example of framing long-standing arrangements was found in a case of 'unsolicited' donation of gym equipment by past employees to the organisation. The space allocated to the equipment was not sanctioned but staff had little ability to challenge the location in that it meant singling themselves out as being a disrupter and against popular opinion. By labelling the equipment as a hazard and the usage as 'risky' the organisational discourse shifted to one of a 'constant complainer' to one focused on safety and the greater good:

"There was gym equipment down here at marine house and up at Teddington Locke and it was only like a bicycle and a rowing machine and some weights and things. It had been put there originally for our divers having to train for their licences, to get fit and then it stayed there and people had brought stuff from home so it ended up being a mini gym but of course people were using it on their own, not supervised if you go down to your local gym they won't let you go anywhere near it without an induction and signing all the form… so there was a risk that people could hurt themselves so in the end we made the decision to remove it, it was handled through the risk committee, it went through the register and we decided the only mitigating action was to remove it. We talked about mitigating it through supervision but it was all too much and we offer a reduced sports membership at a local gym some people were quite upset about it being gone but they have had to accept it" (P29)

As these types of issues were 'one-off' situations that lacked any actuarial data that could substantiate the likelihood of a failure being realised, or any past event to signify the severity of what would be incurred other than anecdotal evidence, it was close to impossible for staff to challenge or argue with the attribution, or for that matter measurement, of risk being implied. And as Luhmann (1993) suggests, the growing need for the organisation to always consider and manage risk, meant that once the gym equipment or external event had been identified as a risk, there was no other option but to act.

5.3.3 Section Summary

As the administrative area began to familiarise themselves with the roles, responsibilities and techniques associated with the ERM program, the power drawn from risks ability to explicate relationships and to reconcile different types of value was recognised. In a practice that had yet to

see a strict amount of rigor imposed on the analytical process or assessment techniques, the participants gravitated towards the innate ability of the term 'risk' to imply uncertainty and explicate relationships. The term relationship is possibly one of the key themes that emerged from the substantive and symbolic structural implications of the newly implemented ERM program. The organisation made a conscious decision to allocate the responsibility of this task to an individual with very little, if any, 'classical' risk management training. Instead, the task of standing up the risk infrastructure fell on the shoulders of a long-serving individual who held a deep level of personal 'capital' with a wide range of internal and external stakeholders. Successful implementation would rely more on the ability of someone to engage and understand the staff rather than 'dazzle' with skill and proficiency.

The 'artful' framing of the risk management function was seen to play out in the strategic application of risk terminology and language. Using the word 'risk' to frame and label longstanding organisational arrangements in order to address situations that may lead to unpopular resolutions meant problems that were allowed to persist in the 'organisational ether' could be made rectifiable by 'risking' the uncertain and unfavourable situations that had been accommodated for years, if not decades. This begs the question of was this a case of an organisation unearthing latent risks or was this more a case of awkward or unfavourable conditions being amplified and escalated to force a win for a few at the cost of enjoyment for the many?

5.4 Functional Dimensions

The following section will explore the findings as they relate to how the administrative areas actually carried out the work they were charged with and the types of problems the sought to resolve. The administrative departments such as Human Resources and the Pension Fund managers were most comfortable operating in a well understood set of cyclical practices such as budgeting, annual reporting requirements and quarterly stakeholder meetings. If anything, the predictability of administrative functions begged the question of how an enterprise risk function would add substantial value. The majority of their work relied on a repeatable, transactional type of interaction that valued repeatability and routinization. They also drew from well-established tools and techniques that are highly institutionalised and are common place in most legitimate organisations, public or private. In fact, the practice of risk management could in of itself be seen as a functional administrative service and as demonstrated by the previous section, one that the PLA sought to incorporate into this area of the organisation.

As noted in the previous sections, the need to protect diverse areas of capital was an area that, according to their own assessments of risk, could benefit from increased mitigation efforts. In order for the PLA to claim a legitimate place in the broader social structure, two fundamental assumptions must be true. One being that the organisation requires a port to preside and hold authority over in the first place, and two, the organisation must employ individuals with knowledge to do so. If either of these two components are removed, the legitimacy and relevance of the PLA

will be called into question. The findings highlighted in this section speak to how the tools and language of risk management influenced the functional execution of the administrative services work. In addition to this, and from more of symbolic standpoint, the role of reputational risk is explored and how this rise of this newly formed source of capital was used to substantiate and justify actions of just about any and all activities conducted throughout the organisation.

5.4.1 Integrating Risk Management

> *"You know on the face, it doesn't look too bad but you think to yourself, wait a minute if I can't recruit a Chief Harbour Master, does anyone else know how to manage this process?" (P2)*

Despite the lack of familiarity with the tools and techniques of risk management, areas like the Human Resources and the Public Affairs departments felt that the incorporation of risk management seemed like a logical and natural progression. They felt very comfortable in adopting the practice and saw it as an opportunity to enhance their current programs and operations. For many, risk management offered the ability to articulate very real threats to the organisation's continued well-being. The PLA is under continued pressure to 'do more with less' and it is well known the significant reductions of staff members the organisation has undergone over the years and with it, the vast amount of area-specific knowledge housed within those individuals.

Perhaps where the introduction of risk management has made one of the most substantial impacts on how those within the administrative services area accomplishes their functional work is in the Human Resources department. As a direct result and reflection of the global downturn, as well as the evolving role of the PLA from port operator to more of a custodian of the river, the PLA has seen a sizable reduction in the number of individuals it employs. In its mid-century heyday, the PLA was employing thousands of staff and enjoying a prominent position as significant employer within London. In these earlier times, there was an abundance of available workers and specialised skills would be learned on the job as individuals worked their way up the career ranks. The heavily unionised workforce commanded a stable position and attracting and retaining individuals was of little concern to the PLA. As with any industry or sector, times change; the advent of containerisation, the introduction of the pilotage act leading to the dissolution of Trinity House, and an increasing reliance on technological advancements has greatly reduced the need for a large workforce. The old ways of managing the PLA's human capital are easily outdated in current world that sees a much more transient workforce.

The majority of information in regards to navigational safety was contextually specific experiential knowledge (hazards on the river, tidal conditions, longstanding relationships with ships captains, etc.) and as such, was housed within key staff members. In being so, the loss of an employee would result in a loss of intellectual capital that could pose a very real threat to the ability of the organisation to execute on its key objectives. Where before they could rely on 'strength in numbers' now the PLA must invest a great amount of time in effort in attracting, training and retaining much fewer individuals, and ensure that the amassed knowledge stays with the

organisation despite fluctuations in the workforce. So, it came as no surprise that in facing the increasing uncertainty in the PLA's ability to protect this 'human capital' the HR department showed an elevated interest in incorporating risk information into their decision-making processes.

> *"Future challenges, within the organisation itself, we are desperately trying to get ourselves sorted, in the sense of getting all our records sorted so that they are accessible, licensing, all departments, the problem is you have an organisation that was very, very large in the past and is now reduced to such an extent that the difficulty is in knowing what is out there and trying to pull it all in so it is all accessible to new people who come in, will have access to what the position is." (P23)*

In response to the issues of managing a healthy and skilled workforce the director of HR had gone as far as integrating the concepts, and at times terminology, of the risk management framework directly into the newly developed HR strategy. Couched in the concept of taking a 'progressive' approach to how they managed their workforce, the HR department sought to modernise and supplement their current management efforts with a newly design '6-point' strategy. This new concept was in response to the emergence of issues that were classified under 6 different themes or objectives: developing high-performance culture; promoting diversity and equality; safe and healthy environment (less about accidents more about long-term wellbeing); Efficient; Effective; and finally, sustainable employment arrangements. The resulting strategic document, much like their risk management documentation, outlined specific roles in regards to governance roles and responsibilities, especially in regards to the accountability of the Board. It also identified who would be 'owners' of policy delivery, key performance indicators acting as 'controls', etc. In essence, much of the language that was prevalent in the internal risk literature and guidance material was easily recognisable within HR's strategic document.

In one sense, risks were explicitly identified and incorporated into the strategic document as they relate to the achievement of each of the 6 different objectives. This represented the integration of risk management into the 'routine' decision-making process and had staff think about what could reduce the likelihood of achieving an objective and in the case that failure to achieve objective did occur, then what were the 'knock-on' impacts of this to other areas of the organisation or higher-level goals. This was in-line with how the Head of Risk Management had conceived of and hoped that risk might be used to inform strategic and operational decision-making. However, what was also beginning to happen was how the HR department was now incorporating the language and associations of the risk management processes (identify/analyse/treat/monitor/etc.) and how the pre-existing problems of 'staff well-being', and 'a positive work environment' would now begin to shift from being 'issues' to that of being a 'risk' which is amenable control. This demonstrates a fundamental shift in how the organisation is, even in risk management's nascent state, beginning to modify their understanding of how best to address, frame and communicate their performance, or for that matter, failures, through the notion of uncertainty.

Another example of this merging or grafting of the risk function with more traditional approaches to problem solving was also found in the HR department. HR was developing goals around framing the risks to employee health less about accidents (slips/trips/falls) and to one that sees a 'lifecycle' approach that seeks to "manage an aging workforce" where risks are slower to unfold and perhaps more easily attributable to explicit programs to reduce the associated risk. Shifting the frame of the undesirable event away from acute and sudden events to ones that unfold slowly, also reframes the associated threats and benefits that comprise the problem. Programs focused on 'days since last accident' now shift to spending their time and effort on more 'holistic' issues that are tied to succession planning, knowledge retention, and staff attrition.

This need to embed or merge the management of risk with how routine work transpires is reflective of how risk is managed in the other areas of the organisation. For example, and as will be explored in the following chapters, risks to navigational safety were routinely characterised as an intrinsic part of what the organisation 'just simply does'. Similarly, the Marine Services department was also seen as intrinsically 'risky' work and that managing risk was largely about relying on first-hand experience and accumulated wisdom (i.e. professional judgement). The difference for Administrative Services was the 'newness' of explicitly acknowledging the management implied a lack of familiarity with tools and techniques. Adopting and integrating the risk management tools in a mimetic fashion to how the other 'competent' areas of the organisation helped compensates for this area's self-perceived lack of legitimacy.

5.4.2 The Rise of Reputational Risk

Time and time again, the notion of an organisational failure impacting the reputation of the PLA was raised by interviewees not only from the Administrative Services area, but from all areas of the organisation. The notion of preserving the PLA's reputational capital was so dominant that it almost played a more significant role than managing the primary risks to society. The rise of reputational risk has been under examination for some time and as Power (2007:135) notes "The imperative of managing reputation means that the internal governance of the enterprise must become explicitly more outward facing and formal…". This continually growing obsession with the notion of 'reputational risk' became clearly evident in the finding of this research study. Staff were often more concerned with the risk of generating negative attention from sensationalised failure rather than the original impact to financial, social or organisational well-being.

It can be said that on whole, the Port of London Authority has enjoyed a relative positive and stable reputational standing within the eyes of its local and international stakeholders. This has been achieved in the absence of any formal governing body, official ranking system, or comparative industry metric, such as those experienced by universities, government agencies, or industrial sectors. For the PLA, reputational risk was seen to relate to all areas of the organisation, with any activity or action being a source of potential risk to how the organisation might be perceived. Each of the risk registers used for the internal, external and operational cataloguing of top risks, had a

column set aside for 'reputational impact' and in doing so, each row that contained a risk also had an associated description of the significance of a risk line item being realised. The notion of needing to manage reputational risk was noted by the majority of interviewees at some point within their interviews regardless of the area that they were working within, however those in administrative services were notably more preoccupied with the concept. The Public Affairs staff were front and centre in managing these risks and saw reputation as an amassed source of capital, as noted by the following participant:

> *"You build up your capital and you build up your relationships so that you can get information to them and they will read it and they can say, yeah I know [me] for the last 7 years, so he has shared the reality with me so thank you very much. That is the benefit of building up the capital but you build that up to draw it down when you need it and you never know when you are going to need it" (P8)*

It was evident through a variety of participants that it was the idea that an organisational failure would be exposed to the public and really boiled down to the idea of external perception be outside of the direct control of the organisation that seemed to drive the obsession with reputational impacts as P8 goes on to state:

> *"So, that side reputational could have a huge impact on the PLA if it was judged that the vessel had sunk on some part of the PLA the reality is that is more likely to be that the PLA could well burnish its reputation because the ship stuffed up in some way and we are then the ones who are then responsible for getting it out of the way, so we could then be the heroes." (P8)*

Some of this could possibly be attributed to availability and affect heuristics, in which individuals amplify or attenuate the salience of specific events. In speaking to affect heuristics people tend to judge the significance of a risk in relationship to its 'goodness or badness' or when speaking of availability by the believability in the event transpiring, often by recalling synonymous types of historical events. For the staff of the PLA, the most cited significant event was the sinking of the Marchioness and the associated loss of lives, as noted in Chapter 4. Despite this event having any significant long-lasting impact on the credibility of the PLA, it was repeatedly used to justify or substantiate the need to 'manage a risk', P8 speaks to this in the following excerpt:

> *"The biggest reputational risk that the PLA has faced in recent years is the sinking of the Marchioness…because we are responsible for facilitating safe navigation on the Thames, which actually if you listen very carefully to the words means you can't legislate for idiots… but we can create an environment in which you can be safe" (P8)*

This sentiment was echoed by P29

> *"We are a very risk averse organisation… don't' like risk… because there only has to be one thing going wrong and the PR damage that it can do to you as an organisation is huge. I mean the Marchioness is an example. That is 25 years ago and we still get criticised about it today" (P29)*

However, others felt the need to manage reputational risk was driven down by the PLA's Board members. In a sense, the staff were not as much managing a risk to the PLA's reputation but rather that of the individual Board members, who would be ultimately held accountable for a catastrophic consequence, such as a fatality:

> *"Our board insists that every risk has a reputational assessment, so there is a little box on the register that says reputation… so serious death or injury to an employee or member of the public… and it doesn't mean that the PLA was found as being guilty of a transgression… just the fact that it happened and it was on PLA territory it is just as damning." (P1)*

As the performance of the other departments was supported by the administrative activities, the idea of reputational risk allowed organisational actors providing Public Relations, Human Resources and Information Technology services an opportunity to further demonstrate the significance of their work.

> *"I know that from the PLA side of things that reputational risk is pretty high, losing money, dealing with the aftermath of a particular shipping line pulling out. For us, filling in and being like why am I there because of the risk of losing systems and losing equipment, in the vein of business continuity – 'we've lost the ops room here what do we do?' – we pump a lot of that data up to Thames barrier, so if we did lose it we could operate core systems from up there." (P26)*

At the end of it all, it really came down to reputational risk management meant that you simply did your job well. The absence of failures, or anything to attract attention, meant that essentially the risks to the organisation's reputational capital would remain low. It also framed reputational risk as not being attributable to a bad strategic decision but rather an operational shortcoming. This idea if employees simply do what they are supposed to do, and use their professional judgment, then risk will ultimately be managed is aptly summed up by the following statement:

> *"risk comes down to the individual in an organisation like this because we trade mainly on our intellectual capital so I think for me nirvana is when we have anyone in the organisation realising that risk starts with them" (P1)*

5.4.3 Section Summary

The above two sub-sections begin to paint a picture of how risk management in the administrative services area, as it relates to their functional roles, was driven by its ability to integrate with the existing functional understanding of what those areas meant to the broader organisation. In both cases of the Human Resources department and the Public Affairs department, the idea of managing risk was conceived of as needing to be integrated into existing practices. For the HR department, this had more substantial implications for how they went about framing their issues and conceptualising their problems. Managing risk for them meant that they required a whole new HR strategy that could account for the need to manage the associated risks, if not actually transforming existing issues into risks, much like the case of the gym equipment or extra-curricular activities. For

them to be successful, they saw felt that risk management should be woven in to their six-point strategy and in doing so they could kill two birds with one stone.

For the Public Affairs department, risk management afforded them the ability to symbolise all organisational activities as posing a risk to reputation. The creation and acceptance of a broad, organisational measure of 'reputational capital' meant that an uncertainty attributed to achieving their department's objectives, largely resided all staff doing achieving their outcomes. The absence of any publicised failures meant that, for the most part, the organisation was being perceived as a legitimate and well-performing entity. This is not to suggest that on-going activities that further strengthen public and political relationships wasn't relevant work but if reputational risks were to be realised, it would most likely not have been attributable to shortcoming of Public Affairs' efforts.

5.5 Chapter Summary

The emerging theme that becomes clearly evident in exploring the role and influence of risk management within the administrative services is the overriding obsession with the external. Firstly, the need to conceive of threats as being external to the departments (or better yet the organisation) allows for the originating source of failure to reside primarily outside of the Administrative Services' control. If something was to go wrong or threaten the staff or functioning of the PLA it would most likely come from an external pressure or force that was not the responsibility of the organisation to manage.

The uptake of ERM also presented the organisation with some substantive structural changes that afforded the administrative services with an increase to its overall responsibility. By housing the general responsibility for the operationalisation of the program within the administrative services area, this area of the organisation was able to elevate its position within the organisational and at the same time begin to claim a new area of expertise that could further differentiate the department's offerings.

Lastly, the findings also demonstrate how the practice of ERM actually influenced how the organisation undertook and executed its current functional activities. On one hand, the language of risk enabled the organisation to frame market conditions as a negative externality that required action on behalf of the PLA in order to preserve future prosperity. Yet at the same time, the program could also be used to articulate the need to manage further internal reductions in resources at the sake of losing key internal sources of 'risk knowledge' and in essence, compromising the functional ability of the PLA to effectively manage navigational safety or efficiently conduct marine operations.

Furthermore, the newness of the requirement to explicitly manage risk, and the lack of familiarity with assessment techniques and management strategies, could be used to explain away the apparent lack of proficiency in executing consistent and robust risk calculations. However, the following chapters go on to explore areas of the organisation with much longer standing

relationships with the very same concepts and tools and yet, as will be identified, similar methodological, cultural, and structural arrangements have just as great an ability to interfere with 'pure' and unfettered calculations of 'objective' risk. It is as though the organisational actors are fully aware of their limitations, lack of control, and shifting uncertainties, and that to infer some type of controllability over forces far more complex and dynamic than any line item in an excel spreadsheet could ever hope to accurately capture is time ill spent. So why embrace such an explicit and mechanical process if any tangible gains in efficiency or effectiveness are limited at best? Does this newly operationalised practice represent little more than a new set of clothes for the organisation's elite or do these color-coded spreadsheets and probabilistic assessments of future failures serve other purposes, greater than the sum of its parts? The following two empirical chapters will continue to explore and uncover other relevant findings that begin to shed light on just how the practice of risk management was being employed at the PLA and if the means actually serve to justify the ends.

Chapter 6 Navigational Safety

6.1 Introduction

On the surface, the introduction of an enterprise-wide approach to managing risk had little overall impact on the pre-existing Navigational Safety department's understanding of how best to manage the risks they were faced with. This is not to say that there was either little interest in, or support for, the expansion of formalised practices to managing risk across the organisation. But for the most part, the general consensus was that this area of the organisation was inherently risk-based and therefore had been managing risk, successfully, for decades. As such, compliance with the newly introduced policy on risk management was a foregone conclusion and served more as a secondary communication tool, pushing information out to the rest of the organisation, rather than being seen as any type of substantive change to how risk should be managed. However, as little interest that was payed to the formalisation of risk across the enterprise, the Navigational Safety department did provide some significant findings as to how risk was being conceived of and the challenges to increasing the adoption and acceptance of a more holistic approach.

The Chief Harbour Master's office was located on the top (third) floor of the PLA's main headquarters at Gravesend. The large corner office was all windows, on the interior and exterior walls, and everyone knew when he was in the office, either through a visual account or on that of his commanding voice. His direct reports, an Upper, Central and Lower Harbour masters, were assigned corresponding sections of the river to that of their title. The Central and Lower Harbour Masters worked out of Gravesend, while the Upper Harbour Master was stationed at the Trinity House Building in central London. The VTS team also worked out of Gravesend with multiple offices throughout the building. The dynamic within the Navigational Safety team's office was very collegial and in speaking with the staff during their breaks, they often prided themselves on the sense of family working at the PLA brought about. Much of the Harbour Master's time was spent in office meetings with various stakeholders rather than being actually out on the river. Meetings were usually in regards to large commercial projects, municipal development issues, working public interest groups as well as host of different committees. The more 'hands-on' work, such as vessel inspections and responding to incidents was left to the Deputy Harbour Masters. All of which often revolved around the identified need identify, analyses and respond to the risks posed to navigational safety.

This area of the organisation already considered themselves experts in the field of managing the risks to navigational safety. Unlike the administrative areas that focused more on the calculative aspects of the risk assessment process and understanding the likelihood and consequence of different events transpiring, those in the navigational safety department felt they had being calculating risk 'for centuries' and was a taken-for-granted skill. Instead, the navigational safety department was far more concerned with their ability to identify risk and to subsequently marry

them up to compatible risk management treatments or controls. Effective risk management wasn't threatened by the ability to appropriately analyse or assess risk, professional judgement saw to this, for the navigational team it was all about the concept of control, what could be controlled, and how well they could control it.

The Navigational Safety Department also placed an extremely high value on its demonstrated ability to minimise adverse events and how this ability stems from the direct application of professional judgment. The structural implications of introducing risk management emphasised again how the PLA was an authority and industry leader in managing navigational safety risks. It also reinforced the existing organisational structure and how the department would be expected to conduct its business, the resources it required, and the simple fact that risk management was something that was inherently their job. If anything, the calculation of risk was perhaps seen as the potential weakness of risk management as it relates to upholding and protecting its role as an authority. From a functional perspective, the organisation was cognisant of how the calculation of risk and the participatory nature of the risk assessment process, opened up the senior management to possible challenge. The intent of the following chapter is to explore and uncover the relevant findings regarding how and why those working in the navigational safety department encountered and responded to risk.

6.2 Structural Dimensions

The following section explores the role risk management had in influencing the organisational arrangements as it pertained to the Navigational Safety department. As will be evidenced in this sub-section, the need for any ERM system of managing risk had been usurped by the fact that the management of risk had essentially been integrated into the majority of the functional areas of the department by way of implementing a Safety Management System (SMS). A result of adhering to the guidance contained within the Port Marine Safety Code (PMSC), the need to identify, measure, analyse and treat navigational safety risks had implications for what constituted a risk and how easily the organisation could respond or modify their existing approaches to managing it. The primacy and centrality of the navigational safety being a core mandate positioned the other areas of the organisation as a secondary or supporting function. As a goal of ERM is to enable the organisation to identify and acknowledge how risks might be connected across an organisation, the domination of risk by a single department meant other risks, like HR or financial, would be hard-pressed to challenge the pre-existing risk infrastructure required to manage navigational safety. Challenging how the department managed a specific risk would require the organisation to entertain alternative structures, relationships or technologies, not to mention the implications of sunk costs to existing controls and equipment that had been previously justified through prior assessments of risk.

The role of managing risk also had implications from a symbolic perspective in the way that the organisation positioned itself to external stakeholders. Risk became an important means of

legitimising the Navigational Safety department's place among the broader societal backdrop of the river. Who the PLA was, was inextricably tied to the risk that it was statutorily obligated to manage. Risk became a topic of discussion and ongoing dialogue that the PLA relied on to engage a wide range of stakeholders. As such, risk was a common connection that was used to reinforce the PLA's authority as well as capture the publics concerns. It provided them a common ground to both capture and demonstrate responses to issues and problems. Not to mention, the ability of the PLA to use the explicit metric of risk as a means to further substantiate the performance of the organisation, often through the apparent lack of realised risks on the river. As will be evidenced, the inherent challenge function associated with an effective ERM practice becomes limited when the management risk serves as means to also communicate a department's organisational and societal legitimacy.

6.2.1 Hardwired to Manage Risk

It was no surprise to hear from interviewees in the navigational safety department that they felt that their role of ensuring the safety of navigation was upheld on the river was basically the reason the rest of the organisation existed:

> *"Our Number 1 job is the safety of navigation, and in order to make it safe for ships to go in and out, you need other stuff. The hydrographic surveys to chart the depths because of the tides here, the shifting sandbanks and everything else, we have a very sophisticated hydrographic survey ability… Things like Finance, HR, Information Systems, all of those are built up effectively to support the safety of navigation." (P3)*

This commonly shared and taken-for-granted understanding, was something that staff often tide back to reason as to why the organisation had come to be and that not much had changed when it came to why this function was still required, as noted by the following interviewee:

> *"We were set up in 1909 as this public trust, although we aren't allowed to use that word much anymore, but to hold in trust in an act of sort of Edwardian municipal socialism as a direct response to the chaos of Victorian capitalism that actually sorted the docks and built the docks, we need to have this arrangement to create order from the chaos that was to improve it and I think our roles as guardians of the river throughout its entire length still remains" (P7)*

This type of understanding meant that staff simply did not question the expansion of the ERM program, nor the need to adopt other, more comprehensive safety management systems. However, the adoption and hardwiring of risk management into the structural fabric of the department had implication for how decisions on resource allocation should and would be made. For example, the need to reduce the likelihood and severity of navigational incidents both reinforced, and was reinforced by, the existing functional structure of the department. The organisational functions that were structured under the Chief Harbour Master were inherently designed to identify and monitor the possible hazards and associated adverse events resulting from ships' movements up and down

the Thames. This had been hard-coded into the organisation's 'DNA' over the years and was an explicit expectation of the principal guiding document, the PMSC. In this document, the need for every port authority to uphold and maintain and effective SMS. The SMS set out the expectations for a port authority to ensure it maintains a set of highly functioning and explicit control measures that comprise a broad systems approach to managing safety risks. The systems components fall into the two broad categories (seen as risk control measures) of 'documentary' and 'hardware'. Examples of documentary controls are that of the regulatory framework, operating manuals and procedures, notices to mariners and emergency plans and procedures. The hardware components comprise elements such as radars, VHF communication, tide gauges, moorings, and harbour service craft. In directly linking the organisation's functional areas to corresponding controls, rationalising any modification to either the software or hardware components of the SMS, the staff felt it should be supported by some type of risk assessment that would validate the expenditure.

> *"So, fundamental to this whole thing, is risk assessment. So, if we have a bylaw that says thou shall not do this or thou shall not do that, it's not because the Chief Harbour Master thinks that's the way it should be. There should be a risk assessment process that leads to that bylaw being developed as a risk control measure and that might be a bylaw or a direction or some other thing. The risk control measures will therefor vary enormously." (P3)*

An example of how risk assessment influenced resource expenditures was described by one interviewee who spoke of the evaluation of the need for building a new tower to house one of three radars along the course of the Thames that was at the time, situated on a building in a poor state of disrepair. Although the building was slated to be torn down, it was just two years prior, costs had been incurred to upgrade the tower. As such, a reasonable course of action would be to justify the cost of the tower upgrade in that it supports protects the prior investment and provides increased coverage of the river along with increased resiliency in the event that one of the other radars fail. What could have been a rather straight-forward cost/benefit analysis, required a supplementary risks assessment as proposed by the Chief Harbour Master. The corresponding subjective assessment framed the corner as 'risky to small vessel traffic', and as such, unquestionably justified the expenditure – no more questions were raised.

A similar example was also put forward by another respondent when talking about the PLA's spill response capabilities. One of the primary environmental risks had been associated with the transportation of crude oil to the Coryton oil refinery. As the refinery had recently closed, the transportation of heavy crude was no longer a substance that would be a potential contaminant requiring clean-up. The essential elimination of this risk resulted in the PLA no longer requiring the specialised equipment used to clean up a crude oil spill. However, in removing this risk from the rolling hazard list, a new risk 'emerged' in regards to heavy fuel gas; a risk that had been on the register along-side the crude oil spill but with little attention being afforded to it.

"That level of risk was always there, but you could argue that it has risen in that it ships have gotten bigger but really, with the crude oil being gone, you can now refocus on something new. Again, we have to rely on the fact that the ships are properly constructed and piloted appropriately, and our limited response capability was focused on crude but now we can demonstrate we can clean up heavy fuel oil and we changed and refocused our oil spill response capability and acquired new kit to deal with it." (P10)

In the above scenario, the risk wasn't even re-assed but it was purely by virtue of a higher risk being eliminated that resulted in the rationalisation that fuel gas would now be new focus of spill response capabilities. What had been an acceptable level of risk was now deemed to be too high and required additional resources to mitigate the consequence of a possible future spill. The acquisition of new equipment had reassured the navigational safety staff that the risk now remained low as evidenced by the following operational risk register line item.

Figure 6.1 Operational Risk Register Detail

Risks			Impact Analysis			Risk Management				
Risk Description	Corp. Objective	Risk Detail	Probability	Severity	Gross Risk	Current Risk Management Strategy (What are we doing now?)	Probability	Severity	Net Risk	
Serious Pollution in the River	Enduring Statutory Duty - Protecting the marine environment of the tidal Thames	Incident resulting in pollution of the water, air or land (caused by PLA or third party) impacting on PLA operations, people or equipment. The largest threat being heavy fuel oil from a large commercial vessel.	2	4	8	Oil Spill Contingency Plan audited and approved by MCA Spill equipment, equipment readily available (TOSCA) Merchant Shipping Act powers to regulate bunkering Oil Spill incident training regime Maintain tier 1 and 2 response effectiveness and capability VTS	1	2	2	Low

In viewing the above, the residual risk associated with the implementation of controls is scored as low. The identified control measures reduce both the likelihood and severity of a spill. However, this line item also appeared in the 'external' risk register as a line item under the 'environmental' section of the register.

Figure 6.2 Environmental Risk Register Detail

Risks			Impact Analysis			Risk Management				
Risk Description	Corp. Objective	Risk Detail	Probability	Severity	Gross Risk	Current Risk Management Strategy (What are we doing now?)	Probability	Severity	Net Risk	
Serious Pollution in the River	Enduring Statutory Duty - Protecting the marine environment of the tidal Thames	Incident resulting in pollution of the water, air or land (caused by PLA or third party) impacting on PLA operations, people or equipment. The largest threat being heavy fuel oil from a large commercial vessel.	4	3	12	Oil Spill Plan (TOSCA) Business Continuity Environmental Management (Our own works/third party)	3	2	6	Moderate

This discrepancy in assessment of risk highlights some significant issues with the current structuring and oversight of risks within the organisation. When questioned about the difference in scoring, the staff felt that it was due to the different perspectives on the types of controls and that the environmental group would inherently view this as higher risk due to the nature of the risk. It would be natural to assume that those overseeing the environmental issues would place a greater value on these types of risk which is supported by their inherent risk assessment. They could also be less familiar with the level and effectiveness of the controls they did not recognise, which could also support the higher residual risk ranking. However, there was no indication from staff that this would be reconciled, perhaps undermining one of the critical functions of the risk assessment process, being that of challenging assumptions.

Overall, although the Navigational Safety department was receptive to the implementation of an ERM style of risk management at the organisation, the impact on their existing infrastructure was not something they saw as either a threat or for that matter, something to be overly concerned with. The existence of well-established risk control measures, along with supporting reporting and monitoring protocols that had been basically hardwired into the organisation meant that there was little need, or room, for improvement. The following section will now move on to expand how the role of risk management shaped interactions with external stakeholders, as well as how it influenced the organisation's understanding of its identity.

6.2.2 Managing Risk Relationships

Risk management also played a significant role in how the internal structure and function of the navigational safety department related to the 'outside world'. As much as the pre-existing explicit risk management framework driven by the SMS substantively shaped the organisational structure, it also served a broader purpose in regards to its symbolic significance. The ability and obligation to manage risk on behalf of the river user opened up a variety of 'risk dialogues' that could both express, and legitimise, the organisation's identity and actions.

The centrality of risk within the Navigational Safety department meant that it played a very symbolic role in how the organisation understood its broader public-value and corresponding 'corporate' identity. As much as adopting the institutionalised practice of risk management itself can be seen as means to achieving further legitimacy (DiMaggio and Powell 1983; Suchman 1992; Power 2004), the actual practice of risk management afforded an opportunity for the PLA to further establish its place a legitimate harbour authority. The management of risk essentially enabled the navigational safety department to explicitly demonstrate and communicate key messages to directly, and indirectly, impacted stakeholders. It was widely accepted that 'proper' risk management included communicating with various stakeholders along the riverbanks. Not so much as a means to assess or analyse the risk but rather as a means to solicit feedback on treatment options or to possibly discover new hazards or issues worth possible investigation. It also worked

as a feedback mechanism to informally gather key intelligence on what the broader public placed value in and on.

The primary mechanism to solicit and collect input from the public was achieved through quarterly meetings that happened down the length of the river throughout the year. risk management was a tool that was used to engage a wide range of stakeholders who sought to access and navigate the river. The need to assess the majority of activities, new or existing, that would transpire along the river ensured that the navigational safety department would have some say in what could, and could not, be allowed to happen. The significance of this relationship was well understood and that it formed a key link to managing risks to their reputation:

> *"When you are up that end of the river, the potential for low-level chatter, or that we have to deal with 23 local authorities and we have to deal with the mayor it doesn't take long for disgruntlement to spread into something that could be a little more problematic, it wouldn't threaten the PLA but then who is to say that given a few years it wouldn't be something else… all you need is a few people standing up at a public meeting or a stakeholder forum when the entirety of the board is there asking who are you accountable to, and that this is a disgrace, that won't go down well" (P7)*

However, the potential of public opposition to PLA decisions and activities did not mean that the Navigational Safety department was averse to external challenge, and in fact it used the role of the organisation to reduce challenges to the controls it introduced. By closely aligning the need for the organisation with reduction in adverse events and increased safety, the PLA could position the intents and purposes of the organisation in a favourable light. One such case involved the seasonal increase in fluvial flows along the river that resulted in high-water moving at dangerously high rates of speed. This posed a real problem for the PLA in that technically, the Public Rights of Navigation on tidal waters affords individuals unfettered access to the river, even during dangerous times like those encountered during increased fluvial flows. The problem arose when although the majority of river uses were not interested in accessing the river during these times, some individuals had less choice in that they were competitive athletes adhering to strict training schedules.

The problem was less from highly-skilled rowers navigating a more demanding river but rather the signal their usage of the river gave to those less familiar with the increased danger the river posed during increased fluvial flows. As the PLA was not able to bar the athletes from using the river, they did have the ability introduce a warning flag system that had a rather powerful indirect effect. The 'primary' intent of the color-coded flagging system was to indicate to all potential users that the PLA advised against entering the river due to unsafe conditions. Initially, this flag was ignored by the athletes and they continued on with their training, an exercise that also indicated to the less-trained individuals that people were out on the river and as such, they could use it too. This quickly lead to inexperienced individuals requiring rescue on multiple occasions. However, as the insurance companies who provided coverage for the athletes caught wind of the PLA's cautionary advice being disregarded, they pulled coverage for many athletes during this time, resulting in their inability to access the water either. The knock-on effect being that no individuals on the river

coupled with the warning flags meant the likelihood of less experienced users getting into trouble was greatly reduced. This scenario is reminiscent of the 'opposing maximiser' approach to managing risk put forward by Hood (1996) where rather than using a 'homeostatic' pre-defined acceptable risk limit to measure the need and amount of control required to bring risk into check, a more 'collibrative' mechanism is employed that serves to leverage opposing stakeholder values a means or bringing risk into an acceptable balance. In this respect, rather than having to establish explicit risk tolerances and possibly opening up the debate as two what is and isn't consider too risky, the PLA can rely on the pre-existing relationship between the athletes and the insurers to reconcile what should be considered an acceptable course of action.

Relationships with commercial entities were also channelled through the collaborative risk management process. Along-side the three corporate risk registers, the PLA also created, when deemed necessary, corporate registers for longer-standing projects or events. The need to collectively assess risk with external parties provided the PLA an opportunity to establish more personal and direct relationships with those who were conducting activities on the river. The process was as much about gaining insights as it was about gaining familiarity with the parties involved. It also served to reinforce who the PLA was and what their role and relationship would be. For example, the Chief Harbour Master spoke of the need to plan for possibly one of the largest events to ever take place on the river, being that of Queen's Diamond Jubilee River Pageant. The initial proposed event, and what the PLA originally agreed to overseeing, was planned to involve 2-300 hundred vessels. However, an announcement by London's Mayor later announced, to the PLA's horror, that the Pageant would include upwards of 1000 private and commercial craft. Despite the massive increase in complexity required to coordinate that many vessels at one time, the Chief Harbour Master relied on his tried and trusted paper-based risk-register as a means to engage and capture vital information from a team of over 100 experts involved in the planning process.

> *"The reason it worked is that we were rigorous in our hazard identification and assessments, and that we remained open minded in that risk assessment is an inclusive process and not something that you do in an ivory tower. You need to get people who know, it's no use me talking about the risks of a harbour service, you need to get the lowly deck hand and the boat driver up here and say listen, we are having a discussion on the risk assessment of your launch and you need to tell me some stuff." (P3)*

These 'bespoke' risk registers served as an opening opportunity for major stakeholders to gather and exchange information on the common ground of shared values and goals, being that of navigational safety. The resulting dialogue that was generated by the risk assessment process, was also used to inform, albeit informally, the explication of an agreed upon 'risk tolerance' for the event:

> *"The risk appetite for the event was agreed upon beforehand. It was collectively agreed that one serious injury to one person was unacceptable. So that is what all of the risk mitigation was aimed at,*

avoiding a serious injury, that was the non-negotiable. One serious injury would ruin the entire day." (P3)

Although more technical and advanced intelligence and software was at the disposal of the risk management team dedicated to assessing and treating each individual line item, it was felt that the simple and basic nature of the spreadsheet approach ensured people were able to share their expertise in a non-judgmental manner. It was much more about getting the information out of people's heads rather than arguing over likelihood or severity scores. This use of a simple, straight forward and pragmatic approach to managing an extremely dynamic and high-profile event suggests that in the end, shared understandings of what can go wrong may be more important than the quantitative score that could accompany them.

6.2.3 Section Summary

The high-level of pre-existing risk management controls and management systems that was dictated by the PMSC presented a challenge in regards to how the employees of the Navigational Safety department interacted with the enterprise-wide management of risk. The amount of integration of key risk management activities, such as hazard identification, risk assessment and analysis, as well as monitoring and of course risk controls, left the ERM framework with little more enhancement to offer. The organisation hard-coded the controls into the structure of the department and in doing so, risk was positioned as means to justifying decisions and securing resources. As such, the enterprise register became an opportunity for the Navigational Safety department to communicate to other areas of the organisation, as well as external stakeholders, why their controls were needed and the important role that the Navigational Safety department plays in the PLA.

The Navigational Safety department emphasised the value created through engaging stakeholders in risk-based dialogues, both through the exchange of information through public meetings, as well as through the creation of shared specialised risk registers. By engaging with stakeholders in structured discussion that centred on risk, the PLA was able to communicate their identity and substantiate their relationship with a broad range of stakeholders. The need to manage the risks posed to navigational safety was a commonly understood and shared goal among those in which the PLA would interact with. Using this a shared objective, meant that the PLA could reinforce the benefit its rules, requirements and oversight could bring about and at the same time, it acted as a successful mechanism to minimise the likelihood of external challenges to their authority.

The following section expands on the role risk management played in justifying the decisions being made by the department, as well as how they could further protect these decisions from external scrutiny. Just as the practice of risk management had been well-established as a central organising principle, the role of experiential knowledge was equally foundational in supporting the vital risk assessment process.

6.3 Functional Dimensions

At this point, there is no denying the fact that the Navigational Safety department relied heavily on the risk assessment process in determining how best to respond to potential threats to safety on the river. Risk assessments represented a key piece of decision-making information that was critically relied on to justify actions regarding how best to ensure failures did not, or could not, transpire. The centrality of the risk assessment process in regards to justifying and upholding the ability of the PLA demonstrate its right to be called an authority further emphasised the need for high-calibre risk assessments. As much as the risk assessment process could open up lines of communication and engagement with stakeholders, so to could it expose the decisions to increased level of scrutiny. Further to this, there was an institutionalised expectation that a formal risk assessment process capable of producing explicit and auditable records be generated by way of adherence to the PMSC's requirement for Safety Management System. For these reasons, the Navigational Safety Department relied on some relatively advanced marine-focused risk assessment software.

This software, which had been co-developed by a marine safety consulting firm and the PLA, was used to bolster the heavy reliance on first-hand accounts and highly experiential data that was seen as being the best and most reliable source of risk information. Just as the organisation had seen risk as being hardwired into the organisations structural composition, so too was it an intrinsic part of how individuals themselves. Often referred to as 'applying professional judgment' the employees of the Navigational Safety department used the knowledge amassed over their careers patrolling and overseeing the activities on the river. One of the well understood benefits of ERM is that ability to shed light on how risk have been assessed and understood by an organisation. This explication of the calculative process has been seen to have the effect of basically 'turning organisation's inside out' (Power 2007). However, as much as the PLA acknowledged the benefit of open and free exchanges of information pertaining to hazards and risks during their collaborative risk assessments, the actual calculation and storage of the information used to inform these assessments turn out to be less transparent.

6.3.1 Gut Feel and the Reliance on Experiential Data

Much like the notion of risk management was well-woven into the functional composition of the organisation's structure, so to was it tightly integrated into how they conducted the business of overseeing navigational safety. It was a deeply held and repeatedly expressed belief that the staff of the Navigational Safety department felt risk management was something inherent in what they did and was simply part of doing their job, and had been for as long as can be remembered:

> *"We are a 2000-year-old port, we've now been told that we need to implement a safety management system based on risk assessment but we are where we are, we've got 2000 years of experience so we have got a lot in place already" (P10)*

This inherent notion that risk management was imply what they did, meant that the staff's ability to naturally identify and know what is and is not a risk came down to their professional judgment. Just as the functional aspects of the department's structure revolved around the collecting, monitoring and responding to risk, the knowledge and assessment of any risk was amassed over a lifetime's career of different experiences. This experiential source of knowledge was the primary source of information used to substantiate the departments understanding of what would be considered a risk and subsequently, how much risk was involved. In observing the Navigational Safety Management team's quarterly meeting dedicated to reviewing a rolling list of navigational hazards, it became quite clear that the review process was more about recounting stories than technical analyses. Personal histories and accounts of past events and near misses was by far the most frequently cited source of information used to inform both the likelihood and severity and the senior management team would bring up a specific line item and then either validate or disqualify it through reference of a personal experience or anecdotal story. This approach was substantiated by the following interviewees response when speaking to how the department approaches risk assessment:

> *"… a lot of the hazards that we review, and you know, we will sit around the table and say right, so when was the last time that we had this happen? And some of us have been there 20-25 years and we say I can't remember that, but it is a credible set of circumstances that could very well happen tomorrow but because we have compulsory parties, oversight from VTS, because we've got charts and buoys and everything else…" (P10)*

However, this reliance on first-hand experiences driving the understanding of how risks should be viewed could undermine the very challenge function that risk management seeks to elicit. Such a strong over-reliance on subjective data opens the door for the application of biases and heuristics which have been noted to have both negative and positive impacts when it comes to making risky decisions under some level of uncertainty. This could result in the application of the 'familiarity heuristic', in which an individual would recall past behaviours as representative of what would most likely transpire again in a seemingly similar scenario. On one hand, relying on this type of mental short-cut could drastically underestimate the level of risk posed by a given scenario, simply due to the fact that relevant information was either not accessible at the time a decision was rendered or even perhaps disregard due to it not fitting the applied mental model. On the other hand, benefits can also be rendered from the application of these same types of short-cuts can provide close to similar assessment of risk and at a fraction of the effort required by their more laborious, quantitative counterparts (Kahneman 2011).

Time and time again, respondents stressed the importance of relying on and applying first-hand knowledge and experiences when it came to assessing and responding to risks. This deference to expertise was preferred over the option of exploiting sources of information that were collected through alternate means, such as reports of incidents submitted through established protocols or that of local, national or international incident databases. Although third-party data was

incorporated into the discussions and assessments of risk, first-hand accounts of incidents were viewed to be the 'most reliable' source of information. Perhaps one of the best representations of the navigational management team demonstrating the preference for incorporating first-hand experience into the decisions on navigational safety risks was provided through the increasing popularity of the recreational activity of Stand-Up Paddle-boarding (SUP):

> *"People have more free time on their hands than they did in the 1950's, people want to come up with weirder and wackier ways to enjoy themselves in their time off, the new one for us is stand-up paddle boarding… which is crudely, standing on a surf board with a single paddle… I have to say I've done it and its really great… and so what we have got is a new type of water-sport activity that we don't really understand that well, its fairly new, there is no national governing body… you don't have the clubs like rowing or the national body so the risk level is much higher" (P25)*

As the above quote speaks to, the lack of familiarity with the activity drove the perception of risk, rather than the actual physical activity itself.

> *"I'm not sure a risk assessment is right if it says something fundamentally different to what your gut feel is. Unless your gut feel has changed while you are doing the risk assessment but if the risk assessment hasn't prompted you to think about anything any differently the risk assessment should say what your gut feel says." (P25)*

The reliance on first-hand experience as the primary, and at times only, source of data meant that information sources that drew from aggregated data, like national or international statistics, were seen to have less relevance due to the geographic or social contexts being underrepresented. In the case of Stand-up Paddle Boarding, a 'true' understanding of the risk could not be undertaken without the witnessing of the event first-hand. In this regard, local area knowledge was always seen as being a more accurate, although subjective, conception of what could and will go wrong. As this information was not on-hand, the Chief Harbour Master took a trip out to the recreational portion of the river to gain first-hand experience of what was involved, after which an assessment of the risk associated with the activity was derived. The activity was seen as an acceptable activity, as long as it remained in the recreational portion of the river. Any usage of this type of craft in the centre of commercial end of the river, was deemed unacceptable.

As much as the Navigational Safety department relied on this type of subjective risk assessment process, it was understood that the possibility of improving the accuracy as well as the credibility of them was possible through alternate means. Along this vein, the organisation had been tackling the incorporation and application of risk management software for over a decade. As intuitive as the software was for the average user, its formalised and quantitative approach still had trouble resonating with those required to use it.

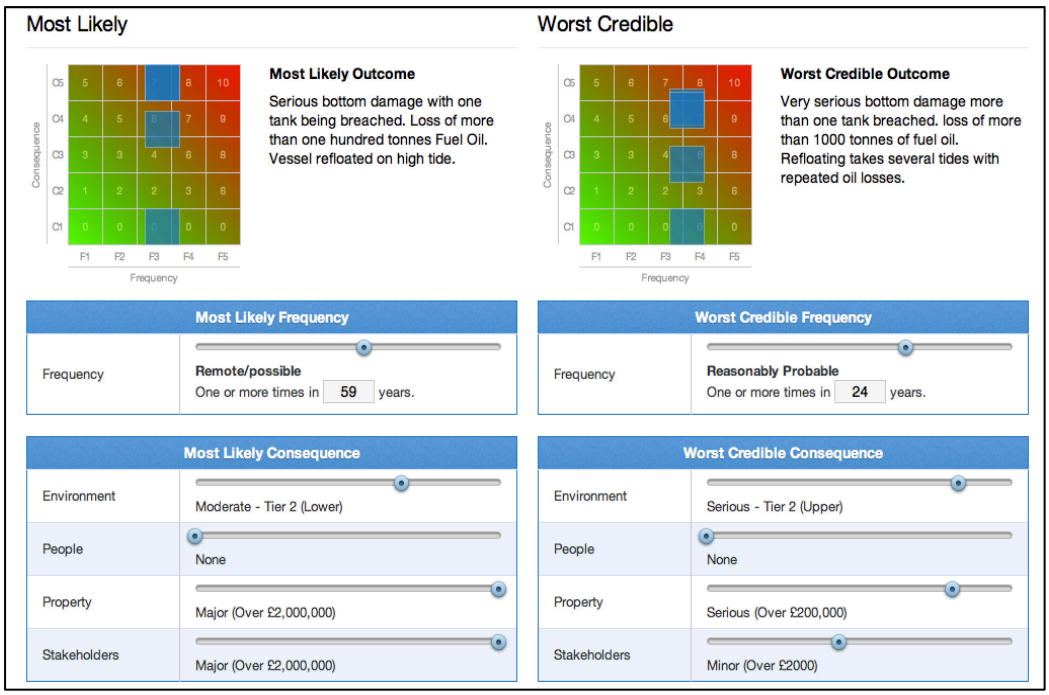
6.3.2 Introducing Objectivity and the Challenge of the Black Box

Unlike the administrative services and the marine operations departments, the role of technology took a much more prominent position when it came to the assessment of risk for the navigational safety department. Risk registers and collective discussions were used much like the other areas, in order to capture and rank the risks and colour code the various scores. However, this was supplementary to a much longer standing risk assessment mechanism that had, since the early 2000s, utilised a computer software package. Known by its product name of HAZMAN, the navigational safety department was the only department to employ specialised risk management software that was dedicated to assessing the risks to navigational safety. The software of choice was co-developed by the PLA and external consultancy company that specialises in maritime risk assessment. The resulting product, now in its second iteration as indicated by the name of HAZMAN II, is a risk assessment software program that:

> *"…Uses a web-based platform [that] incorporates a stylish and easy to use interface, with a high degree of flexibility and can carry out a range of different risk assessments anywhere in the world." (Marico 2015)*

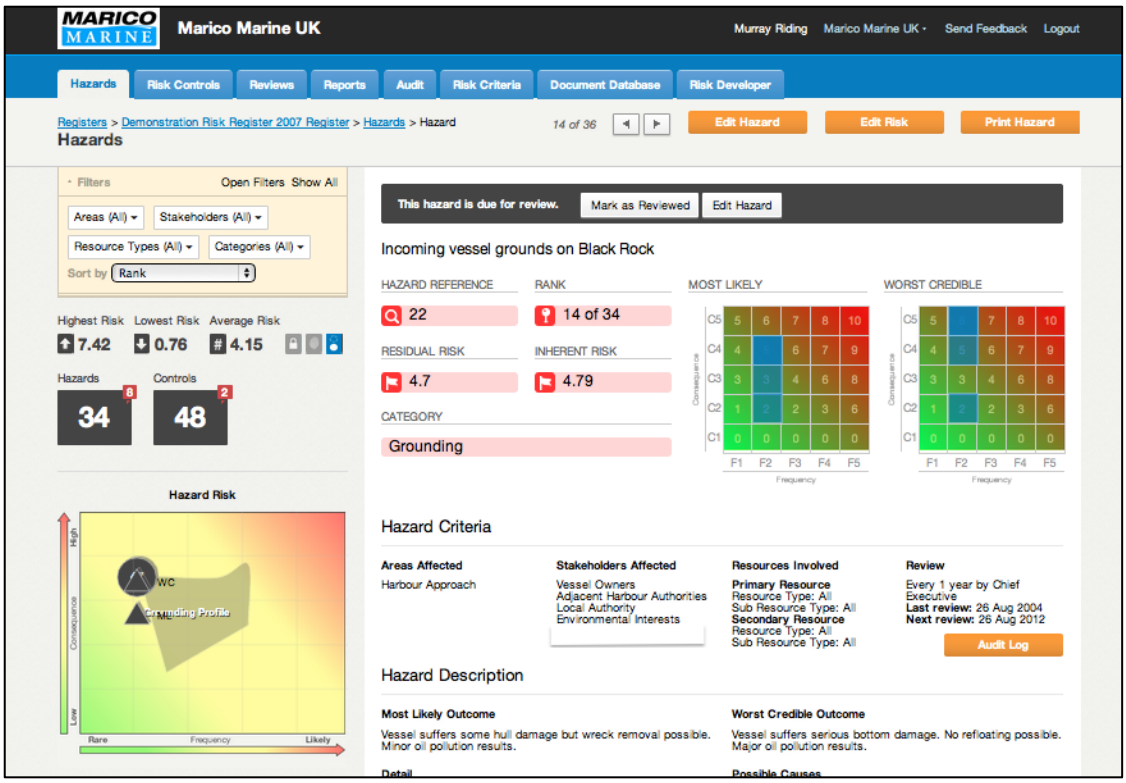
The software basically acts as means to demonstrate adherence with the Port Marine Safety Code's requirement for a documented Safety Management System that is 'based on risk'. Essentially, the computer program allows a trained user to input frequency and consequence data into standardised fields that can automate the scoring of risks for 'most likely' and 'worst credible' scenarios. The following provides a screen shot of the input page for scoring these two metrics.

Figure 6.3 HAZMAN II Risk Scoring Screen Shot



After providing the above inputs, a user can then be afforded a 'dashboard' view of the navigational risks the port is faced with in what is suggestive of a very technical, objective and quantitative portrayal of the risks being managed by the organisation.

Figure 6.4 HAZMAN II Risk Assessment Overview User Interface Screen Shot



As intuitive and graphically engaging as the software program was, none of the staff, outside of the single individual tasked with inputting the data on behalf of the department, saw any significant benefit by using it, as noted by the following interviewee:

> *"So, what the HAZMAN system does is you go into with likelihood consequence and then what is the worst possible what is the most likely and you look in terms of people, environment, cost and reputation. Those are the four things. The problem that we have had with that system is that when you get the numbers out and they are ranked it is quite often difficult to see how the numbers were derived. So, there is always going to be an element of judgement that goes into the process I think, always. Because you are going to have to take a look at the ranking that has been produced by that and you are going to have say ok does this hazard… is it really, actually number one or is this one down here number one." (P3)*

In witnessing a special training day devoted to further 'rolling out' the software to the deputy harbour masters, and others in the navigational safety department, the software consultancy

firm provided the staff with an in-depth overview of how the software worked and how it could further benefit the risk management efforts in the department. It soon became apparent that the staff were less than enthusiastic to engage with the software. Although participants expressed that they were impressed by the apparent sophistication, they soon began to question how this could be incorporated into the daily decisions on risk. The term professional judgment was often used to suggest that although this type of process was clearly sound, it was sub-optimal to their current subjective techniques.

This lack of interest in the more quantitative risk assessment, could be in part due to a general resistance to change, however this was not an overly new element. As stated, the software had been around in multiple iterations for over a decade. A more telling driver behind the lack of interest in the process could have be due to the 'tone-at-the-top'. Although it was stated that the use of this software was encouraged, and for that matter expected, by the board of directors, several statements made by the Chief Harbour Master suggested that a more symbolic adherence to the control measure be assumed. When the scores that were outputted from the software program contradicted prior subjective assessments, the statement was made to the effect of 'you must remember, is always a matter of professional judgment and common sense must be applied'. This underlying opinion was further encountered during an interview:

> *"The problem with the quantitative, objective approaches to risk assessment is that you don't get people thinking about it in the right way, you don't get them owning it. You sit in a group and they are just watching a series of numbers, it doesn't mean a lot, whereas if you go about thinking about it in a subjective way, then everyone buys into it whether it is the deck hand or the chief harbour master or the chief executive they are all participating in the process to identify, assess the risk and the risk control measures to reduce down to an acceptable level and they all buy into that" (P3)*

What is perhaps most interesting by this rejection of more elaborate and quantitative means of risk assessment is that instead of being applied as a black-box that could further protect and obfuscate the process, it was seen as hindrance and one that could actually compromise it. Rather than relying on technological means to protect the calculation of risk, credibility was housed within the experiences of those assessing the risk, and as such, further protection was not seen as relevant, if anything it could pose a threat to replacing an individual's capability, a theme that is made clearly evident in the following chapter.

6.3.3 Section Summary

The challenge here for the enterprise approach to managing risk is again the notion that the individuals in this area are already inherently analysing risk via the application of their past experiences in assessing likelihood and severity of future events. This subjective data that the rely on is not amenable to explicit audit trails and although statistical data exists, credible risk assessment is viewed as being best achieved through the use of first-hand accounts and experiential data sources. Upon reflection, if could be argued that the enterprise approach had yet to formalise

specific criteria for measuring the likelihood or severity of risk, and as such this would be rectified once a standardised approach was practiced uniformly across the enterprise. However, the Navigational Safety department had been conducting 'formal' assessments for risk for well over a decade and had yet to establish or rely on explicit criteria for quantifying their assessments. The likelihood of what was already positioned as a supplementary process has less than favourable odds in initiating a substantive change. At the end of the day, gut feel and intuition were the only reliable sources of 'true risk', and any notion of risk acceptability would remain for the most part implied and ad-hoc rather than a firm and explicit measure.

In a somewhat surprising finding, the use of technology to further refine the risk assessment process was utilised less a means to protect risk informed decisions and rather as a threat to them. The lack of subjectivity failed to resonate with participants who had long relied and appreciated 'real world' accounts of how dangers and failures unfolded. The uptake of more quantitative means remained highly ceremonial in nature and served more as means to satisfy coercive institutional pressures rather than provide further accuracy of assessed the risks.

The following section explores how a 'culture of control' underpinned the structural and functional dimensions of this area of the organisation's response to formalisation of enterprise-wide approach to risk management. It is the underlying values placed that staff tied to a port authority's ability to control its environment, and those within in it. A theme of 'deep integration' continues to be supported from a cultural standpoint and is reflected in how the process of risk management was used to validate its actions and reason for being.

6.4 Cultural Dimensions

Culturally, the tremendous value of risk management was a deep and taken-for-granted assumption among those who interviewed from the Navigational Safety department. Substantively, the ability to effectively manage risk was directly correlated to an individual's ability to apply professional judgment in regards to the likelihood and consequence of hazardous events, such as the contact, groundings or collisions of vessels on the river. The ability to amass, access and apply relevant first-hand accounts and experiences in order to generate valid assessments of the 'real' risks and how best to manage them produced significant findings regarding how and why the organisation applied the management practice. Heuristics, biases and the fallibility of experts shape not only the understanding of what a risk is but also its measure and subsequent response. Linking this management practice so closely and synonymously with an individual's skill sets up specific challenges that can work to undermine, rather than enhance the achievement of risk management's objectives.

Exploring the symbolic implications of risk management for the culture of the Navigational Safety department, historical failures or catastrophic proportions reinforced and overshadowed existing organisation conceptions of risk. Significant failures can produce knee-jerk reactions that can shape an organisation's emphasis of risk management's role in ensuring control effectiveness

over that of challenging assumptions, leading to potentially dangerous levels of complacency and risk attenuation. The following section will explore the findings related to the interplay between the how and why the Navigational Safety department undertook the practice of risk management and the implications this had from cultural standpoint.

6.4.1 Qualifying Risk Assessments

In exploring the cultural implications relating to the management of risk, the need to establish and maintain control was found to be a commonly, albeit somewhat expected, shared value within the department. Part of being an 'authority' meant that the organisation's performance and legitimacy revolved around its ability to influence, via the 'hard and soft' controls it chose to introduce and maintain. As such, how, where, when and why controls were being used was of significant importance in communicating and reinforcing the department's ability to control the likelihood or consequence of navigational incidents.

As the previous sections indicate, risk management was seen to be an inherent skill and function of the navigational safety department was well in hand through organisations existing structural and functional elements. However, this did not mean that the ERM approach to documenting, communicating and 'registering' of risks was not significant when it came to understanding the role of risk management for navigational safety. Taking the operational risk register at face value, it could be seen as a rather unremarkable and expected list of 11 risks that one would expect a port authority to be concerned with. The line items spoke to primarily physical events, such as collision, damage to infrastructure, or pollution that would impact the 'enduring statutory duty' corporate objective of the PLA. However, upon closer inspection, it can be argued that the register was less about monitoring the status of relevant risks and much more about reinforcing and validating a comprehensive set of controls that were linked to a single individual within the organisation, the Chief Harbour Master.

In reviewing the interview transcripts, it was apparent that the Chief Harbour Master had struggle to find a way to assess the effectiveness of the applied controls in relationship to specific risks that it managed. Outside of using the absence of failure to indicate a correct and well-functioning control, the Chief Harbour Master knew that a more direct linkage between control and risk reduction was required. This is when the overly-subjective risk assessment process started to undermine the monitoring evaluator components of well-functioning risk management program:

> *"Although it always involves professional judgment, we understand the relationship between inherent and residual risk and the improvement the risk control measure brings over the inherent risk and it's not something I have been able to get my head around yet. So, with our software we want to be able to show, over time that we have reduced the risk somehow, and it is something we don't do enough of" (P3)*

As they found it difficult to capture, the ability to instill confidence and communicate the comprehensiveness of the risk controls in place was of obvious concern. Despite the expressed lack

of ability to measure the effectiveness of their controls in relationship to specific risks, the ERM register told a much different story. For example, the risk of "Major damage to PLA Infrastructure affecting PLA ability to operate" was scored as having a probability of 2 (out of 5) and an impact of 5 (out of 5) when viewed before applying the controls that were in place. In the column reserved for existing controls, 12 controls were identified, all of which spoke to existing and 'hardwired' functions of the organisation, such as staff training, maintaining key infrastructure, or the process of risk assessment itself. The post-control subjective assessment reduced the probability score by one and was seen to have no reduction to the severity of the impact. However, much like was encountered in the previous chapter, this single point reduction reduced the risk score from 10 (yellow) in half to that of a 5, or low (green) (see figure 6.5).

Figure 6.5 Risk Register Detail

Risks			Impact Analysis			Risk Management				
Risk Description	Corp. Objective	Risk Detail	Probability	Severity	Gross Risk	Current Risk Management Strategy (What are we doing now?)	Probability	Severity	Net Risk	
Major Damage to the Infrastructure affecting the PLAs ability to operate	All Enduring Statutory Duties	Loss of VTS Center. Major Fire at the PLA Premises, on a vessel, terminal or other structure affecting operations, flood	2	5	10	Risk assessment / hazard review VTS/TBNC dual location Enhanced internal security measures implemented following introduction of ISPS DfT approved PLA Port Security Plan Staff fire awareness training In house navigation systems engineering London Titan planned maintenance program Departmental business continuity plans Maintaining key infrastructure Survey work maintaining safe depths Improvement to fire alarm system linking Denton systems to LRH system Flood gate procedures agreed with EA	1	5	5	Low

This 'laundry list' of controls was consistently applied to each line item in the risk register, save that of the final three line items of the register which all spoke to non-physical events such as lack of funding or the construction of 'major projects on or near the river' each of which lay outside of the PLA's direct influence. In doing so, the register became more of a tool to acknowledge the appropriateness of current activities rather than substantiating their influence on the reduction of adverse events on the river.

Not only was there a prevalent need to instill a sense of competent control, the control was most often positioned as influencing the prevention, rather than mitigation of a risk event. For example, in viewing the 11 line items, nine of them were ranked in the green, or low, after the controls were applied. In addition to this, every one of these line items saw the majority of the risk being influenced by a reduction in the likelihood, rather than any mitigation of the failures impact. 9 of the 11 line items had their probability reduced down to 1 out of a possible 5 after the controls were applied. As the only true performance metric available to them was the year's number of navigational incidents, preventing an occurrence rather than mitigating its impact is an obvious preference. This was further reinforced, much like the other registers, in tying the reputational

impact of the occurrence of the event to each line item. Again, preventing the incident minimises the possible impact to the organisation's reputation.

The value of prevention also served to reinforce how many staff felt that in the end, there was little they could do to physically stop an event from happening:

> *"When it comes down to it, it's not up to me or my staff, it is up to the guy on that ship, acting professionally and following the rules… we have to rely on the fact that the ship is certified, that the crew is properly experienced - but in the end, it comes down to the guy steering that ship. What we are here to do is put in place information, support and advice for people using the river, how they use it is up to them, not us." (P10)*

The longstanding notion that the Navigational Safety department was designed to manage risk and the employees who were responsible for designing and implementing controls were inherent experts at assessing risk had deeply engrained the idea that control was who they were and why they existed. The culture of the department was focused on establishing, justifying a validating its actions, all of which were conceived of as some type of control measure. However, the subjective nature of their assessment process left them at a severe disadvantage when it came time to tangibly link their efforts to the performance of those very same controls. There is a chance however, that as the ERM program continues to expand and mature, that the proposed introduction of explicit measurement metrics may begin to shift the reliance on subject and experiential accounts for risk to sources of data that are more easily quantified.

6.4.2 Symbolic Failures and Complacency

Just as risk management played a significant role in how the organisation used the concept of brought value to the work they undertook, so too did it influence the organisation's culture from a symbolic perspective. The catastrophic nature of a failed attempt to manage the risks to navigational safety served as a powerful and unifying symbol among the staff of the PLA, regardless of the area of the organisation they were working in. However, the seriousness of the potential outcomes of a realized risk, such as a collision or grounding that could result in an irreversible loss of life, weighed heavy on those working in the navigational safety department. By far above all other incidents along the river, the sinking of the Marchioness pleasure boat on August 20, 1989 served as a constant reminder to the staff of the navigational safety department as to why their job was important and why they required the authority that was bestowed upon them:

> *"The culture in the port and the catalyst for change in the organisation was the Marchioness disaster in the late 80's and the inquiry that went on the ten years following that. You know, people were obviously pulled into court and a lot of press around that and it was a massive thing and that brought about big enhancements in safety and the port generally where whether it was the way in which communications was scrutinized, potentially dissected during the course of that inquiry as to how people responded that evening, the messages that were conveyed or not, and the fallout from that, in the*

way in which the Port tried to protect itself moving forward from future interrogation of that type and also to protect people on the river generally." (P6)

The ensuing symbolism generated by the Marchioness disaster had implications for how the department viewed their ability to influence the likelihood or consequence of events. First, the catastrophic failure served as defining moment within the organisation's history that struck directly into its core mandate of navigational safety. In doing so, it provided staff with a first-hand account that served as an indisputable fact of just how important the PLA's role is on the river is and how quickly catastrophic failures could occur. This 'lesson learned' produced a powerful symbol that instils a culture of prevention throughout the PLA, underpinning the focus of navigational safety. For example, staff often cited the disastrous event as a reason for the PLA's vigilance and a qualifier of any efforts being applied. Almost serving as a rationalising 'trump card', interview participants frequently brought up the event when speaking to the risks they were managing, and how their immediate work was linked to preventing a comparable incident in the future:

You know it's like the Marchioness, people say you can't have another Marchioness, but you can't say that but what we can do as an organisation and what we have done for the past 20 some odd years is but put in as much hardware and software that you can to make it as safe as possible and try to prevent it from happening again, so it's a lot less likely but you can't say it won't happen but if those things are in place it is a lot less likely that the PLA will be criticised" (P10)

However, it has been close to 30 years since the terrible day in 1989, and in the absence of any subsequent significant failure, organisational controls have somewhat gone unchallenged and as evidenced by the previous section, are being conceived as 'performing as expected'. Although near misses and 'navigational hazards' (i.e. incidents) are reported and incorporated as lessons learned, the underlying cultural message generated by the lack of significant consequences only further reinforces the notion that a disaster isn't being allowed to happen again. It is when organisations fail to recognise and address latent systemic failures that disasters can become realised (Turner 1976). The PLA's current approach to managing navigational safety risks affords little opportunity to explore and uncover systemic risk, and their current lack of involvement with the more 'system-wide' ERM program does not indicate that this is soon to change.

The lack of organisational challenge can, and did, lead to a sense of relatively unfounded comfort among the senior executive. In a classic response to economic hardships requiring fiscal restraint, the organisation sought to reduce or eliminate 'non-essential' services. The absence of failure has seen resources be reallocated on the grounds that risks, or rather incidents, continue to remain low coupled with an inherent 'culture of prevention', the need for contingency management team was no longer seen as being required. The following quote from P6 exemplifies this:

"On this floor, we have lost the contingency management team, unfortunately they were one of the casualties of trying to streamline the business…. We have had to distribute the workload in order to still fulfil our statutory requirements…although you never know, 7,8, 10 years down the line the port

trade could be booming again, we could have, there could be an unfortunate accident somewhere and the need for contingency management team could arise again, cause often with these things you find sometimes they are knee jerk reactions in many organisations… without those pressures these things have been redistributed" (P6)

The knee jerk reactions to significant failures incites can increase organisational attention and vigilance, yet, as time passes and no further risks are realized, vigilance begins to atrophy and complacency can set in (Freudenburg 1992). This complacency was also evidenced by the risk registers in regards to a column that was titled 'Future Actions required'. Many of the line items saw the cell in spreadsheet left blank with no follow-up actions identified. When the cell was populated the text read 'continue current regime', 'continued vigilance' or 'nothing further'. In the absence of any recent failures to act as a challenge function, the register served to validate that all of the existing controls were adequate and functioning as they should. It has been some time since the disastrous Marchioness event that now serves a fading reminder as to what can happen. This begs the question of how much time is left to pass until the next 'unforeseeable' event will serve to bolster organisational vigilance and challenge current conceptions of control adequacy.

6.4.3 Section Summary

In exploring how the navigational safety department valued their ability to control risk, it is evident that it represents a substantial weakness in the overall approach to managing risk in this area. It is not surprising that the element of control would be so highly valued within this area, when the structure and function of the department revolved around its ability to control risk and prevent unwanted events from happening. Using the ERM register, the department struggled to interject any further objectivity into their risk assessments and the register served more as communication of what was in place rather than an accurate representation of how well it was performing.

The Marchioness disaster also played an important role in shaping how the organisation viewed the value of risk management. The organisation had ingrained this event deep into its organisational psyche and relied on it as powerful symbol of 'what must never happen again' and signified the importance of the prevention and effective control measures. However, as much as symbolic risk events can serve to bring an organisation together and highlight the significance of risk management, as time passes, it can begin to further entrench the potential for complacency and support a false sense of security. Having rely primarily on the occurrence or absence of failures produces a flawed metric that does little to challenge well-ingrained assumptions of how and why things fail. A possible opportunity lies in the maturity of the ERM framework and its ability to introduce options to develop more rigorous and credible assessments of control effectiveness.

6.5 Chapter Summary

As can be seen by the findings of this chapter, the introduction of a more formalised approach to managing risk across the organisation was not seen as change or challenge to the existing risk

management methods being employed by those working in the navigational safety department. If anything, the introduction of the company-wide risk management policy and expectations was positioned more as an expansion of what they had been doing for decades, rather than being something they may need to consider adopting. This lack of uptake of ERM, outside of a mild participation in its practice through the population of the risk register, did not mean that valuable findings were not uncovered during the case study's duration.

To begin with, it was noted that for this area of the PLA, due to the required adherence to pre-existing institutionalised expectations on how to manage risk being provided by the PMSC, any company policy or practice would have to be seen more as an additional layer of protection rather than providing any substantive benefit to the employees' ability to analyse or treat navigational safety risks. Risk management had already been hard-wired into the structural fabric of the department and the introduction of a broader scope for risk management only reinforced the existing ways of operating. Unlike the interactions encountered in the previous section, this area of the organisation was very confident in their ability to manage the risks they had been tasked with and it was simply second nature to do so. The department's structure was reflective of the underlying principles of risk management. Enabling sets of control mechanisms, soft and hard, were used to identify, assess, treat, monitor and communicate information on risks. This meant that changes to how the department was structured or operated would be closely, if not dependent on, the associated changes in assessed risk.

The role of what was often deemed 'professional judgment' that represented the amassed experiential knowledge of those working in this area further reinforced the notion that ERM had little to offer on top of what was already being done. The reliance or even appetite to engage in quantitative risk assessments ran counter intuitively to how the Navigational Safety departments understanding of the benefits the assessment process could provide. The department had come to rely on a subjective and more informal and collaborative assessment process that served as an opportunity to engage stakeholders and create shared understandings of values and threats. This same process could also be used to navigate organisational challenges and even pit opposing parties against one another in a 'collibratory' application of managing risk.

And lastly, a 'culture of control' was evident within the navigational safety department. As much of the reason for being, as well as the corresponding structure was understood to be inherently risk-based, the concept and application of risk control measures served as an interesting cultural value. Harbouring the concept of control as an underlying cultural value, the organisation espoused the value of preventative controls as being a measure of organisational effectiveness. However, having to rely on the absence of failures increased the likelihood that the organisation could become complacent to underlying systemic issues that were not aptly captured by the subjective cause-effect type risks statements that populated their ERM risk registers.

All of these finding begin to present a very different understanding of the role risk management has, is and should play within the PLA. The next chapter will now present the

findings generated by exploring the Marine Services department at the PLA in order to round out a comprehensive picture of how and why risk was being managed at the organisation. From there, the findings of all three empirical chapters will then be used to inform the resulting discussion in Chapter 8 and conclusion in Chapter 9.

Chapter 7 Marine Services

7.1 Introduction

The following chapter explores the management of more of the operational-type risks at the PLA. For the purpose of this study, 'operational' risks are representative of the risks primarily associated with the work of the Marine Services department, as well as the act of pilotage. Marine Services is focused on providing support to the commercial and leisure users of the river by maintaining navigational aids (buoys, moorings, etc.), clearing the river of debris (driftwood, rubbish, etc.) and providing services such as boat lifting, salvage and underwater inspections. The majority of this work is sourced from the operational support facility Marine House located at Denton Wharf, just east on the river from the main offices at Gravesend. As can be expected with this line of work, the physical nature of this work has employees primarily concerned with the risks posed to the health and safety of PLA employees. Although routine in nature, the hands-on aspect of Marine Services work presented risks that if inappropriately managed, could result in severe, if not fatal, consequences to an employee or contractor.

Marine Services represents the largest sub-organisational unit in the study with approximately 200 of the 345 employees contained within it. Of that, Pilotage Services represents the bulk of the workforce and activity, with the PLA guiding more than 10,000 vessels along the river every year, provided by a team of 90 pilots. Through the act of pilotage, the Marine Services department provides the PLA with its primary mechanism for generating revenue. As the PLA is classed as a trust port, any revenue generated above the organisation's overall fiscal needs is re-invested back into the organisation in the form various infrastructure improvements. However, the need to generate a sustainable income does present a potentially conflicting dynamic when paired against the goal of managing risks to the safety of navigation. As noted in the literature review, the relationship between the management of societal and institutional risks by regulatory organisations has been found to demonstrate a spiralling organisational logic that can proliferate risk management activities to the detriment of managing societal risks (Rothstein et al. 2006).

An overwhelming finding resulting from the exploration of this area of the organisation was the sense of individualism. It was repeatedly recounted theme among those interviewed that managing risk in Marine Services started and finished with the individual employee. The newly introduced ERM framework was supportive of this notion in that 'every employee is responsible for managing risk', however, the extreme individualisation of this area of the organisation ran somewhat counterproductively to the collaborative nature of enterprise-wide thinking. The department, like other areas, was quick to acknowledge the potential benefit in adopting an ERM program, but there was little evidence of any substantive uptake of the practice at a practical level. In fact, as the findings presented below indicate, there was more of an active resistance to the ERM approach, with little more than a ceremonial tip of the hat to the largely paper-based outputs.

Instead, staff opted to demonstrate adherence to protocols through alternate means that were more amenable to their existing operating procedures and routines. The following section provides the final set of empirical findings for the research study, which yet again present another distinct approach and understanding of how risk was being managed at the PLA.

7.2 Cultural Dimensions

From a cultural perspective, working in the Marine Services department was positioned as 'a way of life' that had been consciously chosen by the individual. Employees were well aware that in choosing to undertake this type of work, they had also chosen to manage the inherent risks that accompanied many of these physically-oriented, and at often time dangerous, tasks and objectives. Although navigational safety also expressed a 'way of life' mentality regarding their work, the underlying theme was that Marine Services work was about 'getting the job done'. Decisions about risk acceptability would ultimately reside with the individual at the time the work was being completed. Undertaking the hands-on work associated with piloting craft, maintaining machinery and infrastructure, or dredging the river to free it of debris, meant an one had also chosen to accept that risk was simply part of the job. Positioning risk as a 'matter-of-fact' that a conscious choice had been made, begins to further support Luhmann (1993) regarding the turning of danger into risk thus the unknown into manageable. Further to this, the acceptability of risks appeared to be understood as being attributable more to personal preference as opposed to an explicit organisational policy or threshold. Much of this area's 'risk-work' transpired on the river, away from desk-top computers and meeting rooms which made the link to ERM's paper-based risk management tools seem more of a disconnection, or additional step, rather than an opportunity or benefit. This deep-seated cultural norm of accepting the risks and 'getting on with it' was a key factor that played out across multiple dimensions for those working in Marine Services, as will be evidenced by the following sections.

Another significant finding that will be presented in this sub-section was how individualistic the culture of marine services was. In assuming a much more individualistic and 'silo' mentality when approaching their work, Marine Services employees were much less likely to link failures in their area to actions or decisions that may have arisen from other areas of the organisation. When it came down to it, Marine Services employees relied on the knowledge and resources they had at-hand. Those responses were to take place irrespective of any managerial cost-cutting or strategic decisions in some meeting room back at Gravesend. This meant Marine Service staff new they were responsible to minimise failures and that the consequence of any failure would also be theirs to minimise. 'Looking out for one's self' was the primary expectation when it came to managing risk and this cultural finding, as the subsequent sections will show, had implications for how the structural and functional dimensions of Marine Service's response to ERM.

7.2.1 An Individualistic Approach to Managing Risk

As suggested in the introduction to this chapter, a common theme running through the 'why, what and how' of managing operational risks in Marine Services department was that of 'individualism'. As opposed to the more collective and team-based approach to managing risks in the Navigational Safety and Administrative areas, risk management in Marine Services was perceived to be a task that started and finished with the individual employee. Further to this, there was a notable effort to drive the responsibility for managing risk down to that of the frontline employee. This individualistic approach was deeply woven into the culture of Marine Services, and was driven by a number of factors. Perhaps the most explicit of these resided front and centre in the PLA's explicit risk management policy. As noted in Chapter 4, the PLA's policy for risk management outlines the various responsibilities as they relate to the organisation's hierarchy, with:

> *"individual employees being responsible for:*
>
> - *Identifying risks arising from their work.*
> - *Implementing and operating controls over those risks through application of the PLA policy and processes.*
> - *Highlighting any areas for concern (e.g. new risks, internal control weaknesses or breakdown) through normal management channels."*

Although the previous sections of the risk management policy outline the responsibilities of the executive to ensure a process is in place and being followed, the primary output for executive team is a paper-based audit trail that basically starts and finishes with a risk register. It was as though the employees in Marine Services were well aware of the symbolic nature of risk register, realising that if any 'real work' was to be identified in the 'future controls' section of the register it would most likely not be the executive 'risk owner' who would be doing the work. This was only further reinforced by the risk management policy stating risk owner 'Allocate clear responsibility for controls and action plans'. As such, and opposed to the other two areas of the organisation where employees saw risk management as being a collective exercise, Marine Services employees took this messaging to reinforce the well-established understanding that they would be on their own when it came to managing risk. This understanding was expressed by the Director of Marine Operations and 'risk owner' for any operationally-natured items in the register:

> *"It is now the responsibility for people to manage their own health and safety – they push it back to the worker to identify threats within their environment and bring them up to management – If people see something that is broken people report it, we are seeing fewer and fewer of these petty things you know like 'three months ago I noticed this chair leg was broken' 'well what did you do about it, oh nothing….' You know, that's pretty much gone." (P4)*

Not only did this individualisation influence the perceived or attributed responsibility to identify a risk, it meant that the same person would be responsible to control (prevent or mitigate)

the risk to an acceptable level. So, in this regard, both the nature of the risks encountered and the corresponding skill sets required undertaking the work, were unique and could only really be addressed by those in the department. This reinforced an understanding by the staff under the Director of Marine Operations that their work was inherently different to the rest of the organisation as it was 'hands-on' and physical in nature:

> *"Of all the departments, minus pilotage who are swinging off ladders, we are the most-risky department, we carry the most danger, we have got diving, we lift wrecks from the bottom of the river with lifting gear, we use 140 odd tonne lifts, we've got cranes swinging around, it's just a department that has risk all around it." (P30)*

This taken-for-granted assumption that Marine Operations work was somehow incomparable with the other areas of the organisation runs in direct contradiction to the overall intent of enterprise approaches to managing risk, being that of organisational-wide awareness and collaboration of risk management effort. This inherent difference is reiterated by the following interviewee:

> *"It is an extremely tight community [in Marine Services], I mean we are all… we do a similar job which is completely different than that to anything else within the PLA…As far as managing risks to the business, that's not me. It's outside of my comfort zone. I have very little to do with the outside, civils and all the rest of it."" (P24)*

The respondent goes on to state:

> *"Although it's part of the shared risk management process [ERM], part of it is always stand-alone…I mean I know there is obviously other departments managing risks that could cross [over] but a lot of them seem to be like those in the engineering department -they have got their own risk assessments that are completely different than what we have." (P24)*

Here, the ability to assess risks of an operational nature were seen to require a specific set of skills that would not be transferable to other areas of the organisation, suggesting a more silo-based risk culture, rather than ERM, approach to managing risk (Mikes 2009). This leads to and supports the notion that the rest of the organisation should just leave Marine Services to get on with it. It was becoming clear that the management of the vast amount of, at times, highly dangerous physical tasks would not benefit by any collective organisation-wide assessment or monitoring of risk afforded by the ERM programme. This mismatch between the physicality of operational risk vs. the paper-based risks being managed by the rest of the organisation is aptly echoed in the following statement:

> *"I had meetings where I used to have people talking about paper cuts and people operating chainsaws at the same meeting. Instead, now I put all the people who are using chainsaws give them a list of their main hazards and ask, hey you tell me how you are going to address them. If it puts it into the*

forefront of their mind every day, maybe we will have less falling over and trips with a chainsaw." (P4)

Others however, saw the work of other departments efforts to manage risk through more formalised systems as intrusive and detracting from their ability to 'just get on with it':

"Out of all the departments, pilotage has had its errors, emergency management have had the slip ups, everyone else's has, but our area has never been found wanting because I am simply getting on with the job." (P11)

In any case, individuals in Marine Services felt that they are the ones responsible for managing their risks the way that they see fit. For the most part, this meant managing those risks will take place in 'real time' by them on the job, not behind a meeting room table with a group of their fellow co-workers. If something goes wrong it will be more likely driven by a lack of individual attention rather than a more systemic or collective failing to anticipate or respond. However, this is a completely understandable mind-set, given the strict adherence to the Health & Safety Executive's (HSE) health and safety regulatory requirements that champions the individual's role in managing risk. Although no staff directly spoke to the need to ensure that HSE regulations were met, it was very apparent that the culture in Marine Services was to ensure each individual was responsible for managing risk, starting at the top and moving all the way down the ranks.

The substantive implications of taking an individualistic approach to managing risk meant that the tools and techniques provided by a more collaborative and collective enterprising means of risk management were simply not seen as ultimately compatible with the physical nature of managing risk in Marine Services. The tools or skills Marine Services required to effectively manage risks were unique to each individual and situation and as such, would be applied when and where that individual saw fit. However, the identification of an individualistic approach to manage risk is not meant to insinuate an absentee or negligent management structure. Risks management was still afforded managerial oversight, and management was well aware of their responsibility to ensure their staff remained safe at all times. In this regard, the rejection of incompatible practices more implies that the current HSE safety culture had little to benefit from the 'static' risk assessments offered through the ERM programme.

7.2.2 Managing Risk Represents a Normal Day's Work

The individualistic culture of Marine Services also produced more symbolic implications for how operational risks would be managed. As inferred in the above sub-section, the concept of risk and uncertainty was used reinforce and symbolise an 'operational norm' as opposed risk being conceived of as a deviation from an expected outcome. This normalisation of risk changed the relationship the department created with the targets of their risk management efforts, as opposed to that of the Navigational Department that saw risk symbolising their reason to exist.

Those working in the Marine Services characterised operational uncertainty as to simply be expected and as such, should be inherently managed through the application of their skill and expertise. In this sense, risk was positioned more as something that arose *from* their work, rather than as the direct and primary focus *of* their work. The primary focus of their expertise was on an alternate objective, (i.e. clearing debris and driftwood or maintaining infrastructure) and although these activities lowered the risk to other vessels navigating the Thames, the risks that mattered were those that accompanied the work such as safety or liability risks. In essence, the reduction of risk to navigational safety was transferred to the individual employee who was paid to go about the job they were hired to do.

In positioning risk as something as part of the job and inherent in what they did, had implications regarding when it came time to challenging how things had been done in the past and how they should be done in the future. As much of the notion of managing risk was driven by the individualistic culture, it had implications when it came time to question if staff were following safety protocols and best practices. For example, upon commencing with the PLA, the Director of Marine Services soon became aware of undesirable behaviours when it came to staff adhering to expected worker safety protocols regarding the use of personal floatation devices:

> *"We had years of struggle to get people to wear lifejackets. I mean it's a cultural thing - one of the biggest problems we have is overcoming the culture. When I first came here it was I guess [it's] 'sissy' to wear a lifejacket but it's completely turned around now. You will now have cases where people don't wear them and now people aren't afraid to say 'hey put your lifejacket to their fellow workers. Previously nobody would have ever done that. So, the culture changes slowly." (P4)*

Now although modifying the unsafe practice was achieved, it was not through the application of traditional risk assessments or ERM-type discussions. The change in behaviours relied on more of a cultural shift and was supported by peer pressure. Furthermore, in order to confront this notion that applying caution may be interpreted as some type of individual weakness [i.e. sissy], management also opted to support another indirect means of changing the undesired behaviour. As the Director of Marine Services went on to state, the department simply remained open to the reporting of fellow employees' infractions as a means to police the policy:

> *"We introduced a warning system much like football – yellow means warning, red is a dismissal. Once you've got one group forced to adhere to a policy, they then look around and go 'why are that bunch of people not wearing life jackets'. And in fact, that's what they did. They would take photographs and I would get photographs of people not wearing lifejackets and they would say, 'what are you going to do about these people? If you're willing to force it [on] us, force it on other people" (P4)*

In this sense, it becomes hard to imagine viewing an formal risk register that identifies future actions as 'shift peer shaming to naming'. For those in Marine Services changing undesirable behaviour was achieved through means much less amenable to measurement, let alone

documentation. However, this also represents a potentially problematic issue when seeking to eliminate unacceptable risk tolerances and minimising the possibility of 'normalised deviance' (Vaughan 1998). By continuing to allow employees to self-regulate, 'professional judgement' could begin to bump up against competing factors such as increased demands from management to drive down costs, industry enhancements that can reduce margins of error, as well as personal complacency in the absence of failure. Continuing to avoid the explication of these practices that is afforded through a collective risk assessment exercise, could mean that high consequence risks could go unnoticed, or even worse, be fostered. The following employee speaks to how pre-existing personal tolerances for risk shape the potentially dangerous individual risk-risk trade-offs being made (and a point that is also expanded upon further in the third section):

> *"You always have to take into account the benefits from a commercial point of view. So, over the years we've gradually taken on bigger ships [and] bigger ships mean more money for the PLA. We have to find a way so that we are not stuck when it comes to accepting the bigger ships, so we have to push the envelope, and in doing I guess, we gain a bit more expertise. However, from a personal point of view, even though our safety culture makes us aware of how risks are getting pushed all the time and that health and safety might be pushed on you all the time, so is everything else - like making sure the port remains a viable option." (P24)*

This quote is of particular note in that it shows how the driving risk down to an individual decision and removing the analysis from an explicit and more tangible 'paper-based' process opens the door for 'routine work' to normalise inappropriate margins for error that could result in a catastrophic loss if left un-checked. Surely it is just a matter of time before envelopes are pushed too far and the increased comfort with the reduced margins for error undermine a pilot's actual ability to operate in such unforgiving conditions. Here again, small increments in risk-taking become slowly accepted as the norm, the cumulative impacts of increasing risk tolerances present a greater chance of latent dangers going unnoticed until it is too late (Turner 1978; Vaughan 1998).

The above findings are suggestive of where a substantive benefit could be gained by breaking down some of the individualistic mentalities and silos and providing the staff an opportunity to challenge well-engrained practices or the expectations to be able to 'push the envelope' in a setting that omits the possibility of severe and immediate failures (i.e. injuries) to manage risks. It is also evident that the staff was open to re-evaluating practices and shifting norms in an effort to reduce the threat and consequence associated with realised risk events.

7.2.3 Section summary

The culture of the operational department, although still focused on the overall well-being of the organisation, was much more individualistic than any other area of the organisation. Where navigational safety was focused on 'society's' well-being and the administration areas were more focused on the well-being of the organisation as a whole, the operational staff paid attention first and foremost on the personal well-being of the individual employee. The cultural norm that it was

up to every employee to manage risk and for them to apply their experiential knowledge about risks when and where they saw fit, limited the opportunity to share the collective wisdom through the group assessments undertaken in ERM.

The positioning of risk as a cultural norm had implications for the introduction and adoption of the enterprise-wide risk management programme. Hazards and risks were simply a matter of fact and were seen simply as being an acceptable part of the job that needed to be done. Introducing further tools or techniques were not seen to align or add benefit to the current approaches being used to reduce the level of risk associated with the work that needed to get done. Managing risk was not about a collective discussion or collaborative approach to identifying threats and consequences. For these employees, risk was something that an individual learned to manage on the job and they would inherently apply their judgment to ensure that the risk would remain inside their tolerances.

This individualist approach also had implications in regards to its ability to possibly mask or normalise possible activities that could compromise existing risk controls. In positioning risk as an inherent trait or aspect of the job, it was difficult for employees to explicate the risk reducing processes from the actual work that they were undertaking. The ingrained nature of risks in the individual work that was transpiring meant that in order to create or introduce the appropriate controls (e.g. wearing safety equipment) meant that cultural outlooks would require changing that are less than appropriate or compatible with the measurable and explicit world of ERM registers. The following section on more functional responses to the introduction of ERM builds on this theme of individualisation and demonstrates how this understanding of the individual management of risk would play out in the more functional and hands-on aspects of the work they undertake in Marine Services.

7.3 Functional Dimensions

Continuing on individualist theme of the last section, there was no denying that those working in the operational areas of the organisation encountered the highest level of individual risk and danger. Operating in high-stakes arenas has been seen to introduce a specific set of organisational challenges when it comes to managing risk. Much of this sense of viewing risk from the perspective of the individual could be driven by the nature of the risks this area of the organisation was tasked with managing. In this sense, the causes of these risk and the subsequent consequences that could result were often to seen to again start and finish with the employee. Human error and personal safety dominated the interviews with Marine Services employees.

Further to the nature of these types of risk, they were often realised or transpired 'on the job' and were often described as unfolding in 'real-time' in a dynamic and surprising fashion. This 'as-it-happens' ability to cope with risky scenarios and events challenged the viability of paper-based assessments or software applications. The static nature of the ERM types of tools were better

applied during training regimes that would commute what was expected to be done while at work and in doing so, impart the ability to manage risk on the job.

As much as the Marine Services department supported an individualistic approach to managing risks, health and safety was not the only type of risk they were tasked with managing. As such, this culture of individualism had interesting implications when it began to rub up against competing interests like increasing the efficiency or effectiveness of the PLAs operations. This further highlighted for the staff how deferring to professional experience should trump any possible gains afforded by an ERM tool set, and there for, its usefulness. Only when faced with the opportunity to offer their Hydrographic capabilities as a service to companies undertaking construction work along the river banks did the paper-based tools and techniques of ERM begin to show merit for the Marine Services department. The following section presents findings that demonstrate the perceived incompatibility between occupational risks and ERM methods. It highlights the limitations of audit style conceptions of risk management at the micro-level of organisational dynamics and how individuals truly respond and cope with the risks that accompany this type of operating environment.

7.3.1 Responding to Risk in the Here and Now

As noted above, it was quite apparent that the collaborative paper-based approach to managing risk that was supported by the ERM tools and techniques had little influence or place in the world of Marine Services. For one, very little of Marine Service's staff time was actually spent behind a desk. Mechanical engineers, salvage divers, marine pilots and the like spent the vast majority of their time out of the office and on, or near, the river. Their risks were something that required a level of on-going situational awareness, and in order to ensure operational objectives are met, individual experience is the key asset:

> *"What can happen, probably already has happened so you have to overcome those through experience or knowledge and then dare I say, sometimes it's just seat of the pants. It's about say 'I don't get a good feeling about this and how it has been put together'" (P22)*

The application of knowledge and skill was paramount in reducing risk and often this meant that staff must rely on gut feel rather than quantitative assessments when executing a measured response:

> *"There is nothing out there that we can… at Tilbury with going into the berth there, you've got buildings, you've got towers, you know where you are you can associate, you can see where you are, more or less along the river. At London Gateway, there is nothing, it is flat, so you have got nothing to guide you … so you [are] 'guess-tamating', so when it comes to short distances, it is not all that accurate." (P24)*

It was very well understood and reiterated by the majority of respondents working in the Marine Services department that they demanded a high level of safety in the face of the inherent danger that often accompanies this type of work. As one put it, *'It's a dangerous place and if things go wrong, they can go badly wrong'. (P30)*

Once again though, if and when things do go wrong, it is ultimately tied back to the employee as the source of failure. The following was a response by the Director of Marine Services in responding to a line of questions about the risks they are currently struggling with. In it he speaks to the fact that it was the employee that found themselves in the wrong place and although he hints at the possible 'safety culture' perhaps breading a sense of overconfidence, he finishes with it still being up to the employee to 'pause and think':

> *"What is annoying is that we still have, a decided sort of rumpus of accidents we can't get rid of – minor slips trips and falls, and you know if you having those, eventually you'll have serious one. And we almost did a month ago, have a guy nearly cut in half – got caught between a boat and the jetty – the odd thing is you know he's got on his safety gear, shoes, gloves, safety helmet, the whole works but somehow, he found himself in the wrong position and he is an experienced person, very knowledgeable, very capable and he still had that accident and that really worried me to the extent that if it can happen to him and he was unaware and it happened because he hadn't thought through the thing, was it because the culture of safety was at top, I'll put all the gear on and you know, think 'I'm safe' and you never are that is never the case. So where do we get to the point where people are thinking, just to pause and say, am I alright here, is the really a good place to be standing" (P4)*

As a means to deal with such a dangerous and at times unpredictable operating environment the staff, in addition to their experience and skill, relied on procedural certainty to help identify possible deviances. Paying attention to your surroundings played a prominent role as staff described their operational tasks that comprise the day-to-day work of staff in the marine operations branch, especially when it came to ensuring personal safety when working in hazardous environments.

> *"Most of our risks are well known and have been around for a long time and its things we have already dealt with in different ways and it is more about asking if there [are] other ways we could be dealing with it – it's about being aware that when they come up you are not a by-stander" (P22)*

This began to shed some light on how, despite the continual theme of tying risk management back to the individual, keeping people safe was still something that actually was dependent on a team effort:

> *"A lot of what we do repeats itself, but we still undertake a safety briefing every time, especially if it slightly different. For example, when the guys afloat we are going to do work on a navigational buoy. That involves someone jumping onto a buoy, and then it involves craning and then it involves chaining and heavy chain work. It could involve hitting things with sledge hammers, certainly some burning and cutting, and the deck is getting very cluttered and everything is moving. So, very much the mate or*

the skipper will pull the guys together and say Joe or whoever, you are doing this so mind yourself of that, Bob and Harry you are going to be doing this, so the safety briefing goes out about who is doing what. Now depending on the individuals, that [briefing] will be tweaked or raised or lowered but it is down to the skipper as they have been through it a hundred times before. They go through the format and it is trotted out, or its belaboured, all depending on the skill level of the guys they've got, you know - its adapted." (P30)

The above begins to highlight how although the continually espoused value of individually being able to manage personal risk, a collective approach is still underpinning some of the risk-reduction efforts being undertaken by the employees. Weick (1993) identifies the reliance on a 'collective mind' that leverages the interconnected nature of tasks and, in the case-study he provided, for the ability of those working on naval aircraft carriers to what he coined as 'heedfulness' as a way to dynamically adapt learned routines given the present situation's inputs. An organisation's reliance on heedfulness is driven by the need for reliability and *"those demands often consist of unexpected, non-sequential interactions among small failures that are hard to see and hard to believe"* (Weick 1993:366). These types of lessons are then 'formally' incorporated into past routines, relying on mechanisms such as story-telling in order to persist and integrate into the collective mind's knowledge.

In looking to increase the effectiveness and efficiency of the activities associated with Marine Services, technological advancements also played a prominent role in both managing and influencing risks for this department:

"Things have changed and we have had to adapt because the new technology is there… ships themselves have changed from being the old stop-start engine to highly sophisticated to adjust the pitch and the propellers, you've got ones where the whole motor turns around beneath the ship, and this is new technology that we have had to learn and adapt to because these are ships are what we have had to learn the knowledge for" (P24)

As part of addressing cases like the above, acquiring and applying the best available equipment was seen as critical in ensuring that the accuracy and quality of the work undertaken by the department and that they continued to produce an 'industry leading' service offering. However, incorporating new technologies increased risk to other areas of the organisation such as Navigational Safety. For example, the hydrography department was responsible for the most up-to-date and accurate maps of the riverbed that were used by internal and external parties to aid in the safe navigation of the river, especially at low tide. Some parts of the river, although being 600m wide could be only 10m in depth at most. The increased confidence that was provided through hi-tech computer imaging meant that massive cargo ships were actually calculating their route up river allowing for clearances measured in centimetres.

However, at the end of the day, even with the most up-to-date information technology could produce being placed in the palm of their hand, there was little replacement for the skill and knowledge that their years on the river had provided them:

> *"I've got an iPad with all of the most current recreational use charts and it is of a sufficient quality that we feel it is good enough for being used as a reference but at the end of the day, the best thing is always looking out the window." (P24)*

7.3.2 Dynamic Risk Assessments and Ceremonial adoption

As much as those working in Marine Services were resistant to explicating their risk management activities due to what they felt as an inherent incompatibility of the risks they faced, an effort to link back their integrated management to the policy expectations was still present. A type of 'middle ground' was established that formally acknowledged the inability of operational risks to be captured and managed through written documentation. The term 'Dynamic Risk Assessments' or DRAs was used to capture this notion. These assessments are formally recognised by both the Department of Transportation, as well as the PLA's SMS, and defined as:

> *"Dynamic risk assessment is used to evaluate the situation, tasks and persons at risk when carrying out any form of activity – whether routine or unusual. This process helps an individual to effectively assess a situation as it is unfolding. The person can continuously assess the circumstances and adjust his or her response to meet the risk presented moment by moment." (DfT 2013:41)*

However, the document goes on to indicate that these types of assessments will most likely go unrecorded. This was something that was expressed at the joint HAZMAN II training session that the researcher witnessed. When issues of worker and PLA vessel safety were discussed, a frequent default response would be in the nature of *"Yeah, but that's all captured by Dynamic Risk Assessment"*, with staff openly acknowledging that any ex-post formal documentation of an occurrence would rarely, if ever, be captured. It was more as though these types of risks would be 'mentally captured' and serve to substantiate anecdotal lessons-learned that supported the idea of heedfulness identified in the previous sub-sections findings. It was these 'dynamic risks' that were the ones that really mattered to staff, rather than the broad and generic risks that symbolically populated the register. It was visibly apparent that staff speaking to these types of risks were somewhat physically disengaged with the conversation when it came to Marine Services and the explicit ranking of risks with staff folding arms and leaning away from the conference table. They saw their risks only being managed in real-time, as they happened:

> *"For getting on and off a ship, you have got to use a pilot ladder, and obviously, there is a hazard of two moving platforms, and using a dynamic risk assessment, although we don't actively think of it that way, that is what you do every time, before you go on there you have seen, is that safe? Is the ladder safe? Can I safely go on board? Its built in – the dynamic risk assessment – look after yourself*

first, before you look out for others, look after yourself… self- preservation really, common sense." (P24)

In fact, of the three ERM registers (internal, external and operational) the Director of Marine Services was only responsible for three risks in total. All others fell to either to the Chief Harbour Master or an executive from the administrative areas (Finance, HR or Public Affairs). Respondents in the Marines Services chose to distance themselves from the ERM programme, again suggesting that the paper-based assessments of the enterprise risk management techniques were just not compatible with their specific needs:

"There are two sides – navigation safety – is there anything on the riverbed that is going to damage a ship coming in, and, we know exactly how to do that, the more time I spent looking at the charts, and assessing movements, and talking to the other surveyors, the more chance I have of preventing that, than sitting at meetings and looking at boxes with green and orange areas – I know what is required, someone else can deal with that." (P11)

In reality, respondents felt that messages and communication about risk information was something that would be transferred between staff when it was relevant, on the job. Just as risk occurred and was managed in 'real-time', so too would the event be mentally recorded in an individual's bank of experience, to be retrieved or shared at future date when the time would arise. Discussing and recording risk back at the office was not only unlikely to happen in that it wasn't going to be remembered (i.e. not relevant at the later date), the record that would be generated would not accompany the individual back to the daily task environment – the format was simply incompatible:

"A lot of information is informal, I mean, two or three of you are there and I might have had an incident and I might say I had such and such a thing happen and I might know what happened and a lot of that doesn't go back, it doesn't get fed into the register apart from if someone is in a meeting, a hazard review, or in a navigational risk assessment, and that is when someone will say, oh yeah, so and so said they remember having something go on" (P24)

However, all this being said and despite the majority of the Marine Services bestowing little value on the adoption of explicit risk assessment and management techniques, one small area of the department did see some value in the audit trails created by such practices. In recent years, a section of the Hydrographic function of the organisation had begun seeing an increasing market for making available the PLA's ability to create detailed maps of the riverbed for municipal infrastructure projects or commercial developments. From 2005 onwards, the PLA has begun to service many development projects through the use of their pre-existing resources that had been traditionally reserved from conservancy work and supporting the safety of navigation. The department averages approximately 350 contracts of varying size that now averages approximately £10,000 per contract; a sizable increase over the initial £3-4000 price tag. This substantive revenue stream quickly garnered the attention and subsequent endorsement of the Board to become a

permanent and fully-supported source of income. With entrepreneurial and commercial nature (i.e. private sector focus) of this type of work, it is not surprising that risk has come to play a significant role in the formation and monitoring of the projects they undertake.

Stemming from a department that had historically very little interest in the adoption of any formalised mechanism for managing risk, the staff undertaking commercial hydrographic work embraced and supported the adoption of both internally and externally generated risk assessments. However, despite their enthusiasm for risk assessments and registers to accompany the commercial hydrographic contracts, it would appear that much like the administrative areas of the organisation, the technical content was still much more reliant on 'art over science', as noted by the following interview response:

> *"at the end of the day, if someone is paying you to do the work, they want to make sure you aren't just cutting corners. When you look at the job, you are looking at the risk to yourself, the risk to your reputation and to any future work and you either price the risk out of it and say yeah, I'll take that risk or you just don't. You know you work with the client you develop a professional and personal relationship with the client… Our knowledge and experience tells us what the risks are, so it' becomes about planning not intuition. The longer we have been doing this the better we get at it" (P18)*

In the above application, the term risk was used to indicate operational uncertainty and that which is unknown or even unknowable, rather than a probabilistic quantification of past historical occurrences. For these employees, managing 'business' risk wasn't very different than managing health and safety risks. In the end, it too was about indicating their subjective level of comfort that things would go according to what was planned and ultimately if it didn't', how much would that impact the final profit that would be achieved on close of the project. Again, returning to the preference to manage a risk based on individual knowledge and a gut feel that can only be acquired through experience on the job.

7.3.3 Section summary

It became very clear that for the Marine Services, the management of risk was much less amenable to formalised assessment and analysis techniques and much more to the integration of standards operating procedures and protocols. The introduction of this new and expanded approach to managing risk across the PLA was, for the most part, falling on deaf ears in the Marine Services department. It was in no way attributable to a lack of care of concern about the threats that they face but it was simply something that failed to resonate with staff, given the nature of their work and how they had learned to cope with an uncertain operating environment.

ERM was primarily conceived of as a 'desk job', meanwhile Marine Services was seldom, if ever this for this area's employees. The creation of a paper-based dialogue of risk that relied on computer screens and spreadsheets was something that not only took staff away from the work they needed to get done, it also created a document that was physically inaccessible for those who

could actually benefit from its content on the job. This being said, risk dialogues were created and staff worked together to not only share risk information but to also generate a collective awareness that could leverage the sum of collective workforce in-situ.

7.4 Structural Dimensions

Despite its apparent lack of interest in the ERM approach to risk management being operationalised across the organisation, the Marine Services department displayed the most commercial characteristics of the organisation. As a trust port, the PLA is a self-funded organisation that relies on charges and dues associated with the provision of pilotage and vessel licensing in order to generate the bulk of its financial income. In addition to this, areas of the organisation have been recently exploring the ability to generate revenue by contracting out services, such as hydrography or dredging, as a means to supplement the bottom line. This focus on maximising profit and providing 'more for less' had the potential to place its service offering at odds with the navigational safety mandate. The need to balance possible competing interests was prevalent theme that emerged among the stakeholders when it came to exploring the organisational structure and relationships that were influenced by the practice of risk management.

The practice of risk management also presented notable symbolic implications when it came to the structural relationships of the Marine Services department. Unlike the other departments, there appeared to be a greater underlying divide between the line-staff and upper management with an 'us and them' mentality surrounding their interview responses. This tension was in-part due to the long-standing relationships between the unionised workers and the management, but was also driven by the nature of the risks associated with this type of work. There is a much more immediate realisation of risk in the operational arm of the organisation. The speed of onset of these types of risk is quicker, however their relatively low frequency provides a greater opportunity to collectively spend time exploring options to further reduce risk and perhaps levering ERM's ability to generate a common understanding of the risks being managed.

7.4.1 Balancing Risk Trade-offs and Competing interests

The need to manage operational risk was also, more indirectly, associated with the notion of balancing competing internal and external interests. Operational risk really represented the intersection of physical risks to things like personal safety and ships colliding with less tangible risks of reduced revenue streams and managing stakeholder expectations. This positioned the work of the marine services department and their ability to trade off risks against each other as a key driver for risk management. Respondent P24 expands on how these different sources of expectations begins to shape the need to appropriately balance the time and effort spent on each type of risk being managed:

> *Top of the agenda here is, of course, the safety of the river but also to dovetail to that is to make it commercially viable; pays all of our salaries and keeps it going…. Safety has always been there but I*

think there is more things that have been put into place obviously risk management has come more to the fore over the last couple of years. A lot has been driven by the harbour master's office who looks after the safety and regulation side of it. I've seen a lot more of it probably, having coming to management now with all the background on hazard reviews and all of the rest of it. Also, anything that comes up there, then there is navigational risk assessment, even the word risk assessment is coming a lot more into things that we are doing." (P24)

This need to respond to many different fronts that could perceive risks from multiple perspectives was beginning to become a risk unto itself. However, Operational staff were quite cognisant that the drivers of efficiency could prove hard to reconcile with those driving effective reductions in risks to navigational safety:

"It's very full on and sometimes a bit frustrating because we tie ourselves up in knots on procedure, we are not a money-making organisation but we like to make some money. We are not commercial but we are not governmental, so we fall between stalls and we sit somewhere in between. At the end of the day we have to do it properly, there is no cutting of corners, but you are also mixing it up in the commercial world where corners need to be cut and you know the bottom line is king and unfortunately we try to do that but still wear a sort of semi-governmental civil service hat and the two are in constant opposition" (P30)

And these trade-offs between doing things quickly and ensuring that things remain safe were not the only trade-offs being weighed, external expectations about what the term 'river user' entitled stakeholders to, and to what degree were also required to be balanced:

"the main challenge for the authority, I believe, is finding its proper place within the river – the riparian boroughs and Boris as mayor and they all like to think 'oh it's the river and we can do this and we can do that' and the authority has been there for a hundred years now just gently guiding, persuading and nudging it on the correct course and the challenge for the port authority is to remain in the background but not get trampled on, to allow all of this development to happen without it actually impeding the safeguarding of the river."(P30)

Lastly, the need to allocate resources in relation to the risk posed is a key consideration and driver of risk management within public sector organisations. The strain placed on already limited resources is exacerbated by the private sector's continued demand to push the boundaries of control in the name of increased efficiency and cost savings. The resulting reduction in margins for error places huge demands on the skills and abilities of the PLA's pilots to account for larger ships docking at berths that may were never intended or designed to receive vessels as large as the ones being used today. The newly opened London Gateway Port (LGP) is attracting just such vessels to the Thames and for the competing ports to stay competitive, the PLA's pilots are required to guide ships past the LGP to facilities lacking the technology and infrastructure offered by the newly opened port.

"Obviously, we are getting bigger ships, London Gateway is a prime example, it has been built to design for 400m ships. Other one that springs to mind is VoPac, it started that there were small ships going there, so the biggest one you get there would be around 150m and we are now getting up to 185 -190m ships, also the maximum draft so we are now putting the biggest sized ships we can put on to berths that were never designed for that 40 – 50 years ago, they are right on the limit on what they can handle." (P24)

Although still yet to be captured by the enterprise risk approach, the beginnings of being able to draw connections to other departments and objectives through the concept of risk were starting to develop. There were opportunities at least being signalled by staff to use the new formal approach to risk management as a means to elevate some of their operational challenges up through the ranks of the organisation by tying them to larger, more significant concerns. For example, in a case where trees along the river banks were 'self-seeding' and compromising the integrity of portions of the riverbank's concrete revetments, the issue was connected to broader organisational issues, such as navigational safety, as a means to elevate them within the organisations priorities. The following interviewee summaries how an issue could be driven up to the more senior decision-makers, and in this case, even to be able to link external parties into the management of the PLA's infrastructure (i.e. risks):

"Things like the river bank issue, should get put on the risk register so it gets discussed at a higher level. Issues of funding and what have you that will need eventually to be authorised by the board or by exco, they are not going to authorise that unless they understand the background to the risk and why the work is necessary. It is part of an overall management strategy and at the end of the day, these things cost money and I'm not going to get any funding if I don't demonstrate a sound case for it. A bit of river bank generates no income for us so it is all about the risk, whether it be navigational risk, that one is a bit of a difficult one to argue with a bit of river bank but it certainly is a commercial risk in that it could cost an awful lot of money. Part of the mitigation is that we can, by application to the environment agency, get the funding of the repairs to this part funded by the agency because this river bank actually underpins the flood defences to that part of London, so although it is an asset owned by us it is a primary source of concern to the EA, they wouldn't want to see it fall into a bad state of disrepair and they would encourage us, even with funding, to carry out modest repairs on a continuing basis" (P18)

The above is significant in that it represents one of the very few times that a respondent dealing with these types of operational risks began to frame their issue as being driven by or at least dependent on, factors outside of the immediate control of the employee faced with the risk. One of the key benefits to an enterprise type model to identifying and responding to risk is the ability to break down potential silos between different organisational departments, as well as external stakeholders. It is encouraging to see that although the formal process to managing risk across the PLA was in its infancy, that employees who were so deeply entrenched in a specific way of

perceiving and responding to threats and uncertainty would already be contemplating a more co-ordinated and multi-stakeholder effort to risk reduction. However, the above also highlights the ability for risk management to reframe existing issues. They can overcome resource constraints by demonstrating an associated safety risk that can rationalise the request for additional funding. Capitalising on the fact that efforts to reduce navigational safety risks are rarely challenged, the acquisition of resources was made considerably easier and becomes a quickly learned lesson on how to deal with things that aren't getting the attention that they may (or may not) deserve.

7.4.2 Risk Knowledge as a Proxy for Representing Employee Value

Something that was relatively absent in regards to managing risk in Marine Services was the lack of reference to a specific type of risk – that of reputation risk. This type of risk was quite prevalent in the discussions that were had with employees from the other areas of the organisation, but in Marine Services, employees rarely positioned adverse events as something that would broadly impact the reputation of the entire PLA. Alternatively, the risk stemming from a perceived lack of capacity to execute an organisational role correctly was once again conceived as more as stemming from individual, rather than organisational, skill or capacity. Additionally, the ability to individually manage risk was also less conceived as a performance issue and instead, the knowledge an individual had on how to manage risk was seen as a valuable resource that, if anything, was at risk of being explicated through the very process of formal risk analyses and assessments. The importance of being seen as an invaluable source of knowledge that was not easily replaced was a message many respondents felt the need to expresses given the concerns of the current economic climate and the knowledge of the PLA's longstanding reputation as being an 'employer of choice':

> *"One of the things we never have to worry about is retaining people because we are such a good employer. If someone does go, there are ten guys waiting to take his place just like that." (P30)*

A viable explanation for this need to stress the importance of an individual and their ability to manage risk is tied to the continued reduction in the workforce of the PLA. For members of the PLA operational department, job security has come under increasing pressure as the organisation has seen sizable reductions over its years of operations as the following staff member notes:

> *"When I first came to the Port of London Authority it had been through a very poor time, financially stretched. We had gone through massive changes in the early 70's something like 60 thousand employees down to 300 and a lot of the electrical [engineering] knowledge that was around then was got rid of at the same time effectively." (P21)*

The corresponding response to this external environmental threat to job security produced an interesting finding in relationship to the management of Marine Services risks. The intimate and tacit knowledge of how best to cope with dynamic and uncertain operating conditions was something that could only truly be learned through direct exposure to risky situations. Unlike Navigational Safety that saw risk management as a collaborative exercise, the individualist culture of

operational staff meant that workers saw risk information, and their ability to manage it, as something that could differentiate their value and performance from fellow employees.

> *"The risk of losing talent, you can employ people and people can learn but it doesn't account for wide range in experience that has been gained over the career. It's the skills and expertise that you have got in the organisation and management can say let's halve it and do something different but they have got to take on board what the effect of the action may be with their top-down approaches." (P22)*

The above statement highlights how those actually responsible for 'doing' the work felt that there was a disconnect from upper management and the executive when it comes to understanding what works best to manage risk. Conference room discussions and excel spreadsheets offer little value in comparison to years of experience acquired over lengthy careers. Some respondents took this one step further and felt ERM actually detracted from their ability to do the work at hand. They positioned risk management as an intrusion of management into a worker's daily workload:

> *"Not in favour of the matrix and the formal system – I know exactly what to do to keep us in the 'green area'. That is why I am chartered surveyor and the others are professional surveyors". We know what needs to be done. I only have a finite number of hours and don't see the benefit given other priorities – risk management is burdensome intrusion – each wind farm operator has them go through a tick box exercise – it adds no substantive benefit – It would be better if they didn't do it because they don't have the safety measures to 'save' them. Everyone is feeling as though they are clipped on, that they can now relax – a lot of the health and safety is also just about ticking boxes." (P11)*

Further supporting the individualistic approach to risk management was the fact that many roles within operations revolved around the need to execute a highly-specialised and narrowly-focused function. For example, salvage diving, pilotage, and even vessel licensing, all required the application of a specific corresponding set of skills combined with historical local knowledge. These individuals were required to manage risk in high consequence environments of an unforgiving nature akin to high stakes arenas like air traffic control or space flight (Macrae 2010; Perrow 1984). The majority of these highly-specialised employees are focused on a very specific area of the business that provide a critical function which requires a great deal of organisational investment via specialised, in-house training. Specialisation in managing a specific risk highlighted the importance of the role and hence the ability for an individual or department to communicate their functionality. Individualising risk management presents the opportunity to express the worth of one's roles via the language of risk; being responsible for managing important risks means important roles that theoretically enjoy increased job security. In a sense, this promoted a culture of specialisation whose value was enjoyed by those who retained individual skill sets, as noted by the following engineer:

> *"I'm the only electronic specialist… I am the expert for the entire company" (P21)*

Personal skill and ability was a prominent value held among the operations staff and was seen to set them apart from other areas of the PLA when it came to understanding their organisational significance or importance. For example, the high-ranking position the pilots were afforded in the

organisation was driven by their specialised ability to manage a key operational risk. The ability of an individual to apply their knowledge and skill is directly linked to the revenue generated by executing the function of pilotage. This subsequently elevated the pilots standing in relationship to other areas of the organisation as indicated by the following respondent:

"The pilots consider themselves very important, and they are, for bringing in the larger ships" (P23)

As the ability to apply their skill and reduce operational risk was a key source of self-worth, any threat to digging into their personal 'black boxes' (i.e. wisdom) would be easily characterised as a threat to this amassed capital. Power (2004) notes how ERM approaches to risk management can be characterised as essentially 'turning organisations inside-out' in their ability to generate explicit audit trails that link critical decisions to key individuals, holding them ultimately accountable for possible failures. In the case of the Marine Services department a similar phenomenon is present, not so much in the accountability for failure as that it well understood to be firmly on the shoulders on the individual worker but rather the explication of decision making process presents a clear threat to the value a well-seasoned employee can bring to the organisations revenue stream – getting things done efficiently and effectively. This intrusive aspect of the ERM program is another piece that management will have to pay rather close attention to if little more than ceremonial adoption of the practice is to take place.

7.4.3 Section Summary

Marine Services was perhaps the only area of the organisation that was openly focused on balancing risks and their associated trade-offs. For example, the Navigational Safety department saw their risks trumping all others. When it came down to it, managing the societal risk would always take priority and would default risk control decisions to that of ensuring that no 'unacceptable' risks would remain. Furthermore, Administrative Services of the organisation, risks were also linear in that they were conceived primarily of arising from, and having impact to, the departments in which they were being managed by. However, the operational risks were most often required to be viewed from at least two underlying and somewhat competing aspects: profit versus safety. This created notable link when it came to the employees valuing their expertise and position within the organisation, with risk reduced and revenue retained as both being very explicit means to identify self-worth. In the end being able to keep things safe and make money for the organisation provided employees with a greater level of personal certainty and job security.

7.5 Chapter Summary

Yet again, the exploration of another sub-organisational unit produces similarities and differences in compared to the other areas. For Marines Services, there was little appetite expressed across the department in adopting and practicing this enterprise-wide style of risk management. Risk, for operational staff, was something that was ultimately perceived as an individual, rather than collaborative, responsibility to manage. They understood risk as being unamenable to the paper

based, consensus driven approach to managing risk. Risk was something that was to be encountered, assessed and understood by the individual. It was not about linking it to other areas of the organisation or understanding the possible ripple effects of realised failures resulting from their actions.

Despite this lack of interest in round-table risk discussions, they still leveraged the 'collective mind' to heed threats as they unfolded. Dialogues and risk would be captured as experiences, to be shared with those at an appropriate time and in an appropriate forum. For this intellectual capital was a source of individual power and afforded an employee the ability to differentiate themselves and their organisational value from the rest of their colleagues. In this sense, the accumulation of risk information and its internalisation served as an actual control against the threat of the continued attrition of the PLA's workforce. However, this threat was further exacerbated by the ERM process in that it afforded upper management with an opportunity to penetrate their personal 'black boxes', gaining access to valuable proprietary information of specific operating conditions and the risks that accompany them.

As could be expected with an individualistic culture, this area of the organisation was one of the only areas to embrace and expand on the entrepreneurial benefits that accompany explicit risk management practices. The Hydrographic department that sought to grow its burgeoning service offering to an external audience required an enhanced knowledge of contractual arrangements and as such, sought to benefit from the additional coverage that explicit and auditable risk trails could provide if any failures to deliver on agreements should transpire. In addition to the entrepreneurial nature of this type of work, the department on a whole would also be the only area of the organisation that was at the forefront of balancing institutional and societal risk. Time and money always had the ability to undermine or at least influence decisions on safety. Staff were finding themselves increasingly having to push the boundaries of normal operating parameters, in the face of technological advancements and increasing demands to move shipments up and down the river. Risk tolerances were seen to slowly creep upwards, as the cutting of corners failed to materialise into realised losses. The lack of appetite for explicit documentation in a group setting only further embedding the cultural notion that risk was ultimately up to the individual and as such, primarily managed through the application of professional judgement, on the job, as things happened.

The next chapter will now move on to a discussion of the empirical findings of the previous chapters. The findings of each of the organisation's areas of the will be compared and contrasted against each other in order to explicate the PLA's differentiated response to the operationalisation of the ERM program across the entire organisation.

Chapter 8 Discussion

8.1 Introduction

The literature on ERM adoption, as well as that of neo-institutional organisational analysis, suggests that organisational responses to formal management frameworks, like ERM, have a notable potential to depart from the intended end goals, sometimes resulting in less than desirable outcomes (Power 2004; Rothstein et al., 2006; Huber & Rothstein 2012; Hutter 2005; Powell and DiMaggio 1991; Bromley and Powell 2009). Specifically, the adoption of a management system that intends to identify and challenge long-standing assumptions, actually ends up reinforcing and protecting existing practices and ways of seeing the world (Rothstein & Downer 2012). As such, this research study has explored how the PLA responded to the recent implementation of an organisational-wide ERM style of risk management policy and how it unfolded across three sub-organisational units. In looking to the promises of ERM and its ability to minimise failures, proportionally allocate resources, and increase the likelihood of achieving organisational objectives and outcomes, the PLA served to gain a lot from adopting the practice throughout its various departments.

In seeking to address concerns raised by their Executive Board, the PLA enlisted the aid of a consultancy in order to formalise an ERM programme. This approach was intended to harmonise risk management across the organisation and in doing so, address risks posed to the organisation and to society. All areas of the organisation could be considered to be tasked with some significant risks. Navigational Safety was continuing to deal with an increased mix of leisure and commuter traffic on the more central parts of the river. Marine pilots were having to aid increasingly larger ships, with reduced margins for error, into aging ports that were less than adequate when it came to providing moorage. The financial status of the National Pilots Pension Funds posed considerable threat to the long-term sustainable of the PLA's compensation regime. And finally, Corporate Affairs were having to deal with a range of high-publicity events, like the 2012 London Olympics and the Queen's Diamond Jubilee Pageant, each looking to maximise the exposure of their media coverage. The adoption of ERM was seen as viable option to ensure that the risks posed by issues like these remained managed and under control.

ERM provided promise of a coordinated and standardised management of risk across the PLA. However, given recent research, the question becomes how and why might the different areas of the organisation respond in unified and rational manner or would they decouple ERMs tools and technologies in an attempt to preserve pre-existing rationalities and practices? The empirical chapters of this research study have explored and detailed the three different areas of the PLA's observed response to the introduction of ERM and now this chapter moves on to discuss and explain the 'how' and 'why' behind what was found.

The first half of this chapter looks across the findings of Chapters Five, Six and Seven and discusses how the different departments responded to the introduction of ERM in relationship to what the literature suggested would transpire. In doing so, the goal is to understand how ERM is being positioned as a mechanism to increase situational awareness about potential failures and reduce operational uncertainties. Section 8.2 speaks to the costs and benefits associated with the introduction of ERM at the PLA. As noted in the literature review, ERM is not easy to implement and its inherently bureaucratic nature can come at a high transactional cost.

In order to explain why the different areas of the organisation responded in the fashion that they did, Section 8.3 moves on to explore the mechanisms that shaped the departmental responses to ERM's introduction. In doing so, it is proposed that the PLA enacted a set of ERM rationalisations or logics that enabled a process of 'organisational conservatism' to transpire that in turn, preserved the existing identities of each department. As noted in Chapter 2, organisational logics have been defined as "the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality." (Thornton & Ocasio 1999: 804). It is argued that the emerging logics afforded each department the wiggle room it required to reinterpret the means and ends of risk management in a manner that preserved the various social groups (i.e. departments) cultural norms and identities, and values while at the same time allowing them to both validate existing practices as well as further their overall legitimacy among a range for stakeholders.

8.2 How Did the Organisation Respond to ERM?

The introduction of ERM presented a potential change to each of the three areas of the organisation that were studied. In returning to the question posed at the end of Chapter 2 regarding if ERM will act as force challenge and change at the PLA or will it serve as a force of organisational conservatism and buffer existing practices (Meyer & Rowan 1977; Huber & Rothstein 2013), the following section will now discuss the range of responses the PLA's three departments displayed. ERM practice variation has been established as a phenomenon unfolding across public and private sector organisations, with different organisations adopting different styles of practice (Mikes 2009). However, little is understood about how the practice of ERM can vary across a single organisation. Enterprise-wide or holistic approaches to risk management drive towards a standardised and repeatable practice of risk management (ISO 2009). This uniformity of practice is predicated on the notion that risks that have been subjected to a similar, if not identical, construction process can thus be compared against each other in order to prioritise the allocation of resources to the areas of most concern i.e. high risk. As will be discussed below, although the PLA did strive to adopt a 'unified' practice of risk management, the explicit process spoke more to a need to legitimise actions of the organisation rather than distributing organisational resources or redirecting managerial attention to potential modes of failure. However, in enabling this multiplicity of practice

it will be argued that it afforded the organisation the ability to deal with institutionally pluralistic operating environment and the flexibility in which to demonstrate their competence to a wide range of stakeholder expectations.

Furthermore, past research had indicated that although ERM is 'packaged' as uniform and somewhat generic managerial practice, a range of challenges can arise in it operationalising it. When it comes to understanding how organisations vary in their application of legitimising 'standardised' practice such as ERM, Pedersen and Dobbin (2006) support a cultural view of legitimacy-seeking behaviours. These behaviours are dominated by intra-organisational factors that are characterised by internal learning and socialisation processes that generate individualised identities. If this holds true for the PLA, the organisational response to ERM will have been shaped by contextual factors such as organisational culture and institutionalised expectations, which are known to act as complementary or competing forces that shape organisational behaviours (Masuda & Garvin 2006; DiMaggio & Powell 1983; Schein 2004). In this regard, the practice of ERM becomes less about technical competencies, skills and resource acquisition and more about the overarching struggle of organisations seeking to understand who they are and how they should act (Whetten & Albert 1985). However, aligning new institutionalised practices with that of pre-existing organisational arrangements can have a wide range of impacts, often noted being that of organisational decoupling (Kodieh & Greenwood 2014) to that of a wider-ranging 'sedimentation' of institutional arrangements (Soin & Huber 2103). The following section will now explore the interaction between the newly introduced ERM programme and how the PLA responded to it. It provides a cross-cutting analysis of the three departments and discusses the observed interactions in regards to how the PLA's structured its organisational arrangements, approach to assessing risks and finally, if there were any observed changes in how they responded to risk.

8.2.1 Did ERM Influence any of the PLA's Structural Arrangements?

Perhaps one of the most easily observable responses identified in the empirical evidence was from a structural point of view. The literature presented evidence of the role that organisational structures and arrangements can have when it comes to institutionalised practices, such as ERM (Meyer & Rowan 1977). Specifically, ERM has been demonstrated to lead to the creation of new organisational roles, responsibilities and reporting structures (Power 2007; Mikes 2011; Arena et al., 2010). However, when faced with adopting external practices, decoupling either policy from practice, or means from ends, is a frequently anticipated response to institutional expectations (Meyer & Rowan 1977; Bromley & Powell 2012). What could be perceived as a uniform adoption of risk management protocols is more aptly described as an effort to graft and merge a new management system into one comprised of well-established organisational arrangements and rationalities (Kodeih & Greenwood 2014; Huber & Rothstein 2012).

Looking at the three areas, the internal structural implications of the ERM introduction were seen to vary, with each area resorting to some level of blending of practices. For example, the

Administrative Services area was perhaps the most receptive to the ERM programme and made the most notable change to their structure in the creation of a new role. As new as this role and responsibility was, a new position was not created but the role was merged with a pre-existing position, that of commercial development. As noted in Chapter 5, Human Resources took this grafting of the ERM practice even further with the attempt to merge the underlying control ERM language and terminology, such as 'owners' or 'key performance controls' in developing their 6-point strategy, in what substantiates past research findings of ERM's propensity to turn every aspect of organisational into a 'manageable' risk (Power 2004; Hardy & Maguire 2016).

For Navigational Safety, the introduction of ERM appeared to have minimal structural impact, outside of the required participation in the internal, external, or operational risk committees. Demonstrating a favourable and receptive response to the ERM programme, this department felt comfortable with the existing risk management process and technologies it already had in place. As such, ERM was positioned more as an item that could extend their current approach and rather than alter or shape it. The Navigational Safety Management Team was still considered the primary mechanism for managing the risks in this department and ERM would function more as a means to communicate their risks and associated management activities to the rest of the organisation. Vessel Traffic Services, radio and satellite equipment, navigational aids, etc., were all in place and functioning as expected when it came to reducing the likelihood and severity of any incidents on the river. The 'rolling hazard list' was reviewed regularly and the information was routinely inputted into HAZMAN II, the risk assessment software. All of these well-established technologies and processes meant that ERM offered very little enhancement to what was already considered to be a highly function Safety Management System. ERM was seen more as a means to bring this enlightened thinking to the rest of the organisation and convert them to them to what was well understood as *the* way to avoid organisational failures.

Marine services, saw the least amount of structural change when it came to the introduction of ERM. With their 'leave us to get on with it' mentality, there was little expectation or pressure placed on this group to adopt the programme, although they did participate in the various risk assessment exercises and committee discussions. It was almost as though ERM ran counter-intuitively to this area of the organisation in that they approached work from a highly-specialised and individualised 'expert' role. If anything, the amassing of this individual capital served to protect those in Marine Services from what was considered to be a continued reduction in the number of employees working for the PLA. This in turn lead to a 'hoarding' of key knowledge in which specialist sought to 'black-box' their risk knowledge with themselves serving as the impenetrable black box - a response that runs in direct contravention of the increased organisational awareness that ERM seeks to generate (IRM 2002).

As much as the introduction of ERM had relatively minor structural implications when it came to the existing roles and responsibilities, there were other notable impacts in regards to how the PLA positioned itself in relation to major issues, like the failing pension fund or loss of major

customers. The ability of risk management to aid organisations in navigating complex institutional arrangements has been demonstrated through the construction of risk objects and how organisations assume different points of view in relationship to what poses a threat and what constitutes a source of value (Boholm & Corvellec 2010; Corvellec 2010). Recent research has also begun to emphasise the interpretative nature of risk, as well as how individuals and organisations develop these threat-value 'risk relationships' (Boholm & Corvellec 2010; Hilgartner 1992). This line of thought is suggestive of risk management being shaped by, and dependent on, local and historical interpretations of the context in which a risk is conceived (Boholm, Corvellec & Karlsson 2012). In regards to the relationships the PLA had with external stakeholders, ERM offered a new dimension in how they could relate to the issues put forward by different internal and external actor groups.

For example, labelling things as risk objects afforded those working in the Administrative Services the ability to have the organisation relate differently to the 'unsanctioned' gym equipment. By labelling the equipment as a hazard and the usage as 'risky' the organisational discourse was shifted from being positioned as a bothersome complaint to one requiring managerial action. Exchanges between staff in Corporate Affairs, as well as Navigational Safety, during the public meetings often incorporated a lot of 'risk talk' when it came to exchanging concerns. Although not directly attributable to the ERM programme, these 'risk-based' exchanges with the public, coupled with the increased awareness and attention to risk that ERM created, reinforced the importance of risk management in general. Most notable of these was the somewhat heated exchange between a group of competitive rowers seeking access to the river during times of high fluvial flows. The Navigational Safety department leveraged the existing relationships the rowers had with their insurers, who were threatening to pull their coverage if the 'expert' rowers disregarded the PLA flag-based warning systems.

As much as internal Structural arrangements were absent in the Marine Services' response to ERM, there were some external relationships that were influenced by the programme's introduction for this area of the organisation. The intersection between the need to maintain navigational safety as well as maximise PLA revenue had this area of the organisation confronting potential risk trade-offs. Staff felt they were routinely facing the need to balance increasing demands associated with larger and faster ships that would challenge a pilot's skill and capabilities as they, at times, struggle not to push the safety envelope too far. Although the ERM programme did not specifically capture this issue, the increased attention the programme brought to managing risk in general meant that staff were beginning to realise a possible tool that could begin to broach the subject. However, whether ERM at the PLA can make the leap from conservatism to change, and achieve what should be considered its primary function, remains to be seen.

8.2.2 Did ERM Influence How the Organisation Assessed Risks?

The assessment process associated with an ERM approach to managing risk, often lies at the heart of the management system, as figure 2.1 in chapter 2 depicts (ISO 2009). Comprised of the sequential steps of identifying, analysing and evaluating risk, risk assessment is about as explicit of a 'risk-relationship' construction process that you can get. However, as methodical and robust as the risk assessment process is purported to be, it is ripe with opportunity to be biased and influenced by a multitude of cognitive, cultural and organisational factors (Slovic et al., 2005; Kahneman 2011; Cox 2008; Mikes 2009; Douglas 1982). A common theme prevalent in all the departments when it came to assessing risk was the reliance and deference to that of 'professional judgment'.

The primary source of information on risk was housed within the PLA's employee's past experiences and tacit knowledge. Relying on past experiences meant that in the absence of any large-scale failures, the most notable being the Marchioness disaster over 15 years ago, the acceptability of the current level of risk was largely left unchallenged. For example, in the Navigational Safety department, when being asked to describe risk events or risk that required management, employees gravitated towards a reliance on an availability or familiarity bias in applying their professional (i.e. career experience) during the risk assessment process. As many of the consequences the PLA was considering were rather severe, the frequency of those events was quite rare (e.g. cyberattacks, vessel groundings closing the river, or death of a contractor on PLA property). The absence of adversity inherently implied that controls were sufficient and that in the event adversity was realised then it would be framed as an accident rather than a failure. This left the application of availability and familiarity heuristics largely left unchecked and if anything, the constructed 'risk-relationships' were further validated (i.e. made real) by their accepted presence in the risk registers. Perhaps one of the most notable being the inclusion of a lottery win on the register due to the HR Directors past experience at other organisations where this had transpired. Lastly, the navigational safety department had developed an increasingly sophisticated software solution to aid in their calculation and evaluation of navigational safety risks. Explicit risk assessment for them had been a core task in their work for well over a decade and the adoption of ERM saw little challenge posed to the sunk costs associated with the computer-based assessments. However, as noted in Chapter 6, the reliance on the software afforded no greater level of sophistication than that of the excel registers. Inputting risk scores into the program merely resulted in the information being re-organised and presented in a visual interface rather than the software outputting anything 'new'.

The significance of professional judgement held true for employees in the Marine Services area and led to a second interesting observation regarding the reliance on experiential data and ERM. Unlike in the Navigational Safety Department, where employees were quite willing to document their wealth of knowledge about how things have gone wrong in the past, the audit-like aspect of explicit risk documentation posed a threat to the very application of experiential risk knowledge. As the 'vessel' of experiential knowledge is that of the employee, any request or attempt to access it

becomes a rather intrusive affair. Much like audit, ERM has been characterised as having the ability to turn organisations 'inside-out' as Power (1997; 2007) puts it, and it seemed like this same logic applied to the individuals in Marine Services. It was as though their amassed risk knowledge as a source of capital that helped characterise them as an irreplaceable expert would be compromised by divulging how they personally manage specific risks as implied in the following quote:

> *"…I know exactly what to do to keep us in the 'green area'. That is why I am chartered surveyor and the others are professional surveyors. We know what needs to be done… risk management is burdensome intrusion…" (P11)*

This resulted in a reluctance to engage in the risk assessment process and was reflected by the overall lack of line items being attributed to the Marine Services Director's 'ownership'.

This brings us to another notable point being that of the role of communicating experiential risk information in ERM. As noted above, employees across the organisation would look to first-hand accounts of risk events in order to inform their initial understanding of what posed a risk to departmental or organisational objectives (i.e. objects at risk). When asked to speak to risks that staff saw requiring management's attention, employees often used stories or narratives to serve as examples of why and how risk would play out. The role of risk played a significant part in how the PLA made sense of the world around them. The language, talk and communication about risk enabled employees to attribute meaning to events and to guide goal-directed behaviour (Weick, Sutcliffe & Obstfeld 2005). As much of the information on risks faced by the organisation was housed as tacit knowledge and mental models distributed among various employees, it was as though the ERM risk discussions allowed for the socialisation of different scenarios, allowing employees to gauge the reaction to the plausibility of the recounted story. Whether it was the Navigational Management Team recounting a memorable example of a near miss event on the river during their monthly meetings, or the Marine Services department speaking about the public meetings on how best to deal with trees along the river banks, they provided evidence through a personalised recollection. Situating the description of the risk within a story had made it much more memorable to the others around the table and at the same time added the knowledge to the 'collective mind' of the organisation (Weick 1993). These contributions to the collective knowledge could then be leveraged by less experienced staff members when faced with similar situations. This held especially true for those in the Navigational Safety and Marine Services areas where many calculations or assessments of risk would happen in on the job with employees 'making sense' of risky situations as they unfolded.

ERM also served as a self-reinforcing mechanism in regards to the introduction and application of experiential risk data. In making the assessment of risk, the PLA had a suite of both pre-existing and newly introduced technologies for calculating the level of risk associated with various activities, behaviours and conditions associated with their work. The more sophisticated tools, such as HAZMAN II, was reserved for the high profile navigational safety assessments. However, outside of the 'automated' probability x consequence calculation and the ability to 'heat

map' the risks together, the enhanced technology provided little more than its paper-based counterparts (i.e. excel registers). As all tools were fed the same experiential data and the software solution worked more to substantiate and protect the pre-existing understanding of how risky something was or was not. Each tool gave the user the same level of comfort that the appropriate amount of 'rigour' had been applied to the assessment. All of this reinforcing activity suggests that although ERM is positioned as a means to reduce uncertainty, it actually acted as a way to reinforce what was certain. The overall outcome is somewhat the same in that any organisational 'anxiety' about what the future might hold is reduced, an actual reduction in the likelihood or severity of future events remains more fantasy than fact (Clarke 1999a). This was evidenced by the pushing of risk assessments from a colour of concern (i.e. yellow or red) into the 'calming' green through a single point reduction in the likelihood or consequence scoring, highlighting the inherent issues with risk matrices (Cox 2008). As such, the time and effort spent creating and populating the various risk registers is best characterised as an attempted codification of existing practices.

8.2.3 Did ERM Influence how the Organisation Responded to Risk?

Representing a corner stone of good corporate governance, ERM has becomes a taken-for-granted and highly legitimising (i.e. institutionalised) practice within public and private sector. As such, the literature suggests the PLA could adopt an isomorphic response to its introduction, one that could be subject to a host of strategies that serve to preserve the existing traditions, practices and the cultural core of the organisation (Meyer & Rowan 1977; DiMaggio & Powell 1983; Oliver 1991; Pederson & Dobbin 2006; Westphal & Zajac 2001). Specifically, introducing a management system like ERM, that is designed to inherently question existing ways of doing business, has been linked to the creation of symbolic or ceremonial responses (DiMaggio & Powell 1983). These types of self-preserving responses serve to elevate the practice within the organisation and provide 'tangible' proof of its adoption, while serving as a buffer of well-entrenched practices and cultural arrangements that were in place long before its introduction (Rothstein & Downer 2012). In introducing a standardised and collaborative approach to this activity, it will now be discussed if ERM influenced how the organisation responded to the challenges and issues that they had worked so hard to translate into risk-based conceptions.

For all of the risk committees that were developed to manage the different types of risks, each of them was quite concerned with 'accurately' populating a risk register. Outside of the Administrative Services department, much of the organisation struggled to challenge any of their preconceived notions and ideas about what might pose a risk to their objectives. The risk identification process represented more of a translation rather than discovery mechanism. Each of the committees used their round-table discussion as a means to socialise, rather than challenge, existing problems and the associated potential failures that they though felt deserved organisational attention. As described in Chapter 6, the wording captured in the risk registers actually highlighted the lack of change or challenge to existing practices and control set-ups. Under the column of

'further action required' many of the line items across all of the registers used language like 'continue current regime', 'continued vigilance' or 'nothing further'. The registers produced little to no evidence that there was any immediate need to change anything; as far as the assessors were concerned, risk levels were seen to be acceptable.

Further to this lack of challenge and populating the register with 'well-established' risks, was the absence of any truly uncertain risks. There was no apparent attempt by any of the committees to include risks that they were not familiar with. Surely there had to be scenarios, new technologies, or emerging threats that the organisation had yet to experience first-hand. Including these on the register would most likely have led to the 'future actions' column being populated with some type of research or investigative action. However, it was as though these items were not up for discussion, perhaps due to the uncomfortableness of being unprepared or perhaps they posed challenges to existing hierarchical arrangements. Either way, ERM's ability to uncover new and unaccounted-for risks was being neutralised by the PLA's risk assessment processes.

As noted by DiMaggio and Powell (1983), the artefacts (i.e. registers, policies, committees, etc.) of ERM served much more of a symbolic role for all of the departments rather than contributing to a substantive change in how they saw or responded to risk. A number of examples of symbolic responses to the introduction of ERM were identified across all three of the areas. There were the Administrative Service's efforts to identify and link explicit controls with external threats became an effort to create an illusion of control that ultimately satisfied the ideology of risk management rather than actually change the way they actually went about their existing work or routines. 'Bracing for the impacts' resulting from a loss of key customers was something that saw little change in possible mitigations relating to such an event and rather continue the business-as-usual approach to 'maintaining positive customer relationships' as a means to simply alert the PLA to an impending loss.

The Navigational Safety department leveraged the ERM as a further symbolic nod to their overall commitment to managing the risks to Navigational Safety. Again, the risk registers saw little evidence of any challenge or need to change current practices. If anything, the laundry list of controls outlined under their areas of the registers suggested that all of the controls were appropriate and working as expected. In addition to the pre-existing controls symbolising a well-functioning ERM system, symbolic failures were also elevated through the explicit programme. The Marchioness disaster assumed a powerful position across the organisation's culture and had implications for how the department viewed their ability to influence the likelihood or consequence of events. It provided staff with a first-hand account that served as an indisputable fact of just how important the PLA's role is on the river is and how quickly catastrophic failures could occur.

Lastly, Marine Services showed very little desire for, let alone uptake of, the ERM programme. However, this being said, there was indication that the increased reliance on risk information and the ability to link individual and departmental performance to this 'explicit' metric suggests that future change, or at least challenge, may be in store for Marine Services. As much as the employees

in this area distanced themselves from the 'meeting room' nature of ERM's collaborative risk management process, the increased situational awareness created by gaining a common understanding of the challenges facing different teams provides access to what they consider to be extremely valuable capital. Although ERM has yet to make any significant inroads in this area of the PLA, it will be interesting to see how this 'intrusive' new programme evolves when it comes to managing the risks associated with Marine Services.

8.2.4 Section Summary

In comparing the how the various areas of the organisation responded to the introduction of the ERM programme, very little substantive change was actually witnessed. From a structural point of view, the Administrative Services area saw the most significant impact, with a minor shift in roles and responsibilities. The navigational Safety department simply tacked on the ERM program and positioned as an extension of what was considered an already highly-functioning risk management programme in via the Safety Management System. Marine Services saw little to gain at all with ERMs collaborative nature running counter-intuitive to the individualist culture that was so prevalent among the experts and specialists employed in this area. However, there were some notable structural aspects that saw influence from the introduction of ERM. Internal issues between departments like the relocation of gym equipment or from an external perspective, using risk to shift accountabilities in regards to rowers accessing the river during dangerous fluvial flows, were able to be repositioned through the ERM programme. The ability to create and leverage explicit 'risk relationships' afforded some ability for departments to reframe existing issues in the language of risk, making the amenable to managerial control.

A similar story unfolded when it came to how the organisation assessed risk. Although the introduction of ERM was met with little resistance, its ability to challenge pre-existing understandings of what was a risk and how things might fail fell somewhat short. However, of note was the organisation wide reliance on and appreciation 'professional judgement'. The ability to recall and apply experiential data when it came to identifying, analysing and evaluation risk was a repeated theme across all three departments. Perhaps in part due to the fact that the organisation had yet to identify more quantifiable or statistical sources of risk data, the deference to professional experiences in assessing risk was largely left unchecked. This provided both positive and negative responses; positive in the communicative nature of recounting past experiences between staff members and increasing knowledge of the 'collective mind'; negative in the fact that many of these anecdotal stories were largely unverifiable and could easily be subjected to personal biases. Much of the ERM only compounded these issues through its seemingly legitimising calculations captured by the risk assessment registers and computer software program, HAZMAN II.

Lastly, and at this point unsurprisingly, there was little change or challenge posed to how the PLA responded to risk. The majority of all risks captured during the ERM risk assessment exercises and workshops, by all of the departments involved, identified and captured issues that were well

understood and had been 'managed' for quite some time. This is where the truly symbolic nature of the ERM response really began to become evident. The majority of the artefacts served a ceremonial function rather than any substantive benefit. The process became one that was more representative of translating existing issues into the common currency and language of risk. Avoiding putting anything uncomfortable on the register ensured that risks remained certain and under control.

The above demonstrates new insights into the practical implications of implementing ERM within an organisation. The introduction of an explicit management system, such as ERM, comes at a considerable cost to an organisation and can begin to overshadow the intended benefits of realising reduced risk. On the surface, costs can be easily quantified in the increased time and effort that is required to practice ERM. Staff are now required to attend meetings, populate risk registers, undertake training, hire consultants, etc., in order to ensure the appropriate skills and tools are in place to operationalise the system. Allocating the increased level of resources does provide the immediate benefit of the increased auditability of the decision-making process associated with managing risk. However, the transactions associated with ERM also appear to contain hidden costs for the PLA that have yet to be realised.

The apparent mis-match between how risks were being captured by the tools and documents of ERM and how it was actually being managed begins to suggest the creation of 'fantasy documents', which were discussed in Chapter Two. In one sense, it can be argued that the PLA was actually engaged in the production of fantasy documentation in that the resulting ERM narrative was a "tool of persuasion designed to create the impression of expertise for certain audiences" (Clarke 1999:137). As Clarke further notes, these audiences are not simply the public, which the PLA is mandated to protect, but rather the organisations that hold the PLA accountable to achieve its mandate. The risk management tools and documentation, such as registers, policies, and risk assessment software, serve to communicate the PLA's ability to address and control the risks it is ascribed via its mandate. Yet, how divorced is this documentation from reality?

The PLA's adoption of ERM also challenges the thinking that fantasy documents are, at their core, a symbolic mechanism which can compensate for a lack in experience or first-hand knowledge of risks by creating 'apparent affinities' of control - i.e. false senses of security (Clarke 1999). Rather, in the case of the PLA the creation of ERM documentation actually stripped the rich tacit knowledge and historical context out before it got a chance to be captured and communicated. This was seen to happen in two predominant ways; first, the reductive nature of risk calculations inherently removes the rich contextual data that is present in the verbal accounts and assessments of risk. And secondly, the layout of excel based spreadsheets forced participants to edit out any associated context that actually supported the inclusion of the risk being placed in the register in the first place. It is the context and relevant nature of the relationships between risk objects that ascribes the vital 'meaning' of why a risk should be managed and in turn, how best to go about managing it. The context communicates the rationale to actors by embedding the risk within the

broader field of the organisation's cultural values. In this sense, the concept of fantasy arises less from an apparent affinity of control but rather that the removal of the essential contextual data actually undermines the overall effectiveness of the control system. The immediate 'cost' of this stripping process may not be evident, but as time passes and those staff possessing the tacit knowledge that informed these reductive assessments leave the organisation, the ability for the ERM documentation to present an accurate risk 'reality' may be significantly hampered.

The above has provided a cross-cutting comparison of how the PLA responded to the introduction of ERM. For the most part, it represents a rather straight-forward and clear-cut example of an organisation decoupling policy from practice as well as means from ends (Bromley & Powell 2009). However, understanding why this has transpired in the way that is has becomes a little more complex, and begins to shed light on the role that organisational identity and the need to conserve it, plays in shaping organisational responses to institutionalised practices like ERM.

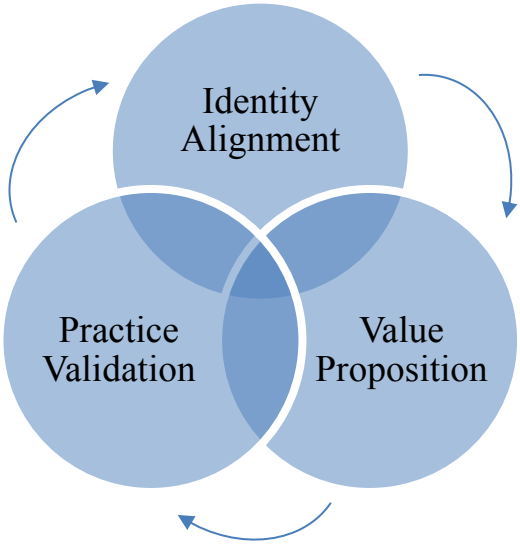
8.3 Departmental ERM Logics of Organisational Conservatism

The following section presents a conceptualisation of why the different areas of the organisation responded to the introduction of the ERM programme in the way that they did. In doing so, it identifies three 'ERM logics' that emerged from the analysis of the empirical chapters. When confronted with ambiguous and pluralistic (i.e. conflicting) institutional environments, organisations have responded by decoupling a practice's means from its intended ends (Meyer & Rowan 1977; Bromley & Powell 2009; Bersharov & Smith 2014). Acting under what can be characterised as an end goal of 'organisational conservatism', it is proposed that each area sought to decouple ERM's means from its intended ends of risk reduction in order to further existing agendas while changing as little as possible. In order to achieve this, ERM facilitated the enactment of three organisational logics that served to rationalise and guide behaviours in a manner that would, on the surface, represent the adoption and implementation of the policy but in practice, the means employed served to achieve an outcome that reinforced rather challenged existing organisational norms, practices and identities.

In essence, the three emerging rationalisations served to answer three basic questions that could then provide the 'if -then' logic required to inform how they should best respond to the ERM programme. Firstly, a logic of '*if* this is who we are, *then* this is what ERM mean to us' was applied. This logic served as an 'identity aligning' mechanism that sets the stage for how ERM was positioned by each department and in turn, shapes the next two logics. The second logic that was seen to emerge, speaks to the aspirational notion of organisational identity (Kodeih and Greenwood 2014) and presents a 'value proposition' logic of '*if* this is who we want to be, *then* this is why we should practice ERM'. And lastly, the third and most 'organisationally conserving' risk logic allowed actors to apply ERM as means to confirm that '*if* this what we have been doing, *then* this is why it was right'. This final logic repurposed ERM as a validating mechanism of past behaviours and values and completes a self-reinforcing process of organisational conservatism.

Each of these three logics elicits a corresponding departmental response that shapes the overall practice of ERM, as depicted in figure 8.1. In addition to this, each of these logics overlap in some regard, for example the validation of how risks were managed in the past would be reflective of how a department's current identity is visualised through the use of a Venn diagram in visual representation below.

Figure 8.1 Overlapping 'Risk logics' of Organisational Conservatism



For each area of the organisation that was explored, risk management was reinterpreted in a manner that resonated with how they saw themselves and the purpose their individual role or department played within the organisation. Although the overall interpretation of what a holistic risk management framework could offer the PLA was generally unified, local interpretations and practices were distinct and differentiated. The pluralistic institutional environment in which the PLA operates drove these separate conceptions of risk management. The following three subsections will now highlight these different logics and how they enabled the PLA to shape the practice of ERM into something that fit into their pre-existing organisational arrangements and rationalities.

8.3.1 Identity Alignment

Identity Alignment was all about situating ERM in the 'here and now' present tense. When it came to the introduction of risk management and its interaction with the culture of the various departments, the organisation sought to protect and defend existing practices. Organisations seek to gain legitimacy and establish identities simultaneously (Pederson & Dobbin 2006). Although much of risk management's purported benefit is in its ability to serve as means of organisational challenge, each of the areas characterised ERM as a means to protect well-entrenched organisational identities. Each area of the PLA had developed distinct and 'unique' identities within the overall organisational structure. At the same time, they shared a broader 'sameness' through

shared norms and values and through the adoption of an enterprise-wide approach to managing risk - an activity that afforded them increased legitimacy among their peers and stakeholders. The adoption of the ERM programme, and its ability to 'turn organisations inside out' (Power 2007), presented to some a very clear threat to what each of these departments had worked so hard to establish themselves as, while others saw it as an opportunity to advance their departments standing and reputation. As such, each department was seen to ensure that ERM was enacted in a way that supported and aligned with who they believed themselves to be.

For those working for the Corporate Affairs department in the Administrative Services area, the alignment of their identity with ERM was achieved through the management of reputational risk. For the PLA, the category of reputation risk had little to do with explicit external evaluation of their performance through ranking or rating systems, such as those that UK universities are judged by (Huber 2009: Power et al., 2009). As much as the notion of reputational risk was directly linked to the possible implications of any individual or departmental failure (i.e. being held accountable) there was another driving force behind the incorporation and significance of reputational risk. For example, in characterizing failure as ultimately playing out as a reputational risk, the associated actions and strategies of the Corporate Affairs department are deemed necessary and requisite. The ERM risk registers, each one with a separate and distinct column for ranking reputational impacts associated with every risk, reinforced the need for, and appropriateness of, the Corporate Affairs group.

Further to the need to align ERM with a 'behind-the-scenes' organisational role, the culture of the administrative services department placed an increased amount of value on their ability to support the organisation in an integrated fashion. For example, there was the expressed interest of the Corporate Affairs department to be seen as 'completely embedded' within the operations of the organisation. Here the goal was stated as being "[able to] manage the communications around those issues to try to ensure the reputation of the organisation isn't damaged". The Human Resources department assumed a similar position regarding the practice of ERM and sought to incorporate 'risk thinking' into its newly developing HR strategy. In their affinity to the broader organisational mandate of navigational safety, the administrative services emulated this commitment through its identification of risks. If they were going to take up this mission critical activity, they too would seek to protect others from harm. In assuming this protectionist stance, a raft of risks of external origin populated the risk register. Cyberattacks, labour union unrest, pandemics, loss of customers, etc., were the types of risks that would align with the role that Administrative Services employees saw themselves fulfilling.

When it came to the Navigational Safety department, they had perhaps the longest standing, formalised approach to risk management that had been developed by any of the three departments. They had prided themselves on the fact they were seen as 'community leaders' and an exemplar and industry leading port authority among their national and international peers. In assuming this 'authoritative' identity, they placed a strong emphasis on the value of hierarchy as this felt to be key

requisite for the retention of the Chief Harbour Master's power and influence. As such, Navigational Safety strongly identified with the control-centric concepts of ERM and was quick to champion its practices across all areas of the organisation. It had long been seen as the dominant expert on risk management and was not about to relinquish any of that authority. The department had been relying on the 'black-box' of risk assessment for some time via the development and usage of the HAZMAN II software programme. The department had created a bureaucratic and highly inaccessible 'black-box' that basically laundered anecdotal and experiential risk accounts into a 'technically valid' risk calculations, such as comments like 'I've never seen *that* happen before' into an unchallenged risk score of 'rare'. The fact that only one member of the organisation, whose desk was positioned directly outside the CHM's office, was responsible for entering data into the programme meant that little challenge would be tolerated when it came to assessing navigational safety risks.

The Marine Services department was the strongest resistor to the adoption of the ERM programme and as such, simply rejected the ERM practice as much as possible due to it being viewed as intrusive to their existing individualistic culture. If working in Marine Services was about individual value, then getting on with what they were trained to do would be the best way to demonstrate it. Here, it was as though employees felt the more that employees rejected the practice, the more it emphasised their irreplaceable nature. Limiting involvement, such as minimising the number of line items Marine Services was responsible for in the register, also meant that there was a much lower chance that the other areas would intrude on how Marine Service's conducted its business. And lastly, providing any knowledge in through the ERM risk assessment actually posed more of a direct threat to their 'intellectual capital'. Much like Power's (1997) audit society speaks to the turning inside out of organisational life, the last thing this area was interested in was creating explicit audit trails that essentially turned an employee 'inside out'. This meant that if ERM was going to align with Marines Services, then avoiding alignment would have to be the name of the game.

8.3.2 Establishing Value Propositions

The logic of establishing value propositions now had employees thinking about the future implications of adopting the risk management programme. The adoption of institutionalised practices, such as ERM, have been viewed as a means to achieve greater organisational legitimacy (DiMaggio & Powell 1983; Suchman 1995) and this would appear to hold true for this case study. As much as each area saw the introduction of ERM as a positive move and one that could afford the ability to make better decisions, it soon became evident that efforts to formally manage risk were speaking to a wide range of unspoken or sub-conscious agendas. Typically, efforts to increase legitimacy have been described as being achieved from a uniform and organisation-wide perspective, what is different here is how legitimacy played out in a more micro fashion, at the individual and departmental levels of the PLA.

Research has shown that the status of an organisation influenced their responses to institutional pressures to change (Kodeih & Greenwood 2014). Organisations enjoying an elite status were more likely to 'graft' new practices onto existing ones, where lower status organisations would frame change as means to reconstitute their status and 'move up the ranks'. The findings of this study echo this at an intra-organisation level in that the 'high status' Navigational Safety department saw ERM as an add-on rather than a whole sale change. However, the lower status Administrative Services saw a great amount of potential to reposition themselves and the issues they faced, elevating them up to equal footing among the other departments.

For those working in the administrative services departments, ERM afforded them an opportunity to increase their legitimacy in relation to the other areas of the organisation. As the practice of risk management was much more prevalent in both the Navigational Safety and Marine Services departments, the adoption of ERM provided the ability to demonstrate their support and allegiance to the newly expanded risk management programme. As a self-admitted 'risk management zealot', the Chief Harbour Master had made no bones about the significance and prominence risk information should have in the decisions relating to Navigational Safety. With little established skill or methods in place to manage risk, the employees in the Administrative Services area were left somewhat wanting when it came to demonstrating their contribution to the collective management of risk when compared to the use of the HAZMAN II software or application Dynamic Risk Assessments being employed by the other departments. ERM was clearly a required skillset that must be acquired if their work was continued to go unquestioned. As such, the corresponding response was that of an unwavering and unquestioned support for the introduction of the ERM programme.

As a formalised response to risk management had yet to 'take hold' within this area of the organisation, little resistance to the practices and technologies was seen. This lack of first-hand experience in managing risk through explicit means also resulted in a perceived ambiguity as to how best to enact the policy. In responding to institutional pressures to adopt external practices, lack of knowledge has been seen to lead to mimetic responses (DiMaggio & Powell 1983; Bromley and Powell 2012), as was the case for Administrative Services. This area was quick to assume new roles and responsibilities as a means to bolster their risk managing capacity. These structural changes, such as tasking the newly appointed Head of Risk Management with co-ordinating multiple risk management committees, help to substantiate this 'important' new role and function. In addition to this, the creation of risk registers allowed for their issues to finally be seen in relation to, and on a par with, the long-standing more 'mission-centric' risks associated with the other departments.

Additional benefit for Administrative Services was realised through the communicative and visual nature of risk management, both verbal and written (Holt 2004; Power 2004). Often being faced with less than the lion's share of the resource pool, administrative areas of the organisation were tasked with managing risk that posed equal if not greater risks to the organisation's long-term survival but with little opportunity to compare or contrast this with other areas of the organisation.

The ability of areas like HR to use risk to place their issues, like industrial action and flu pandemics, side by side with navigational and operational concerns meant that staff felt that they had their voice heard. The communicative nature of risk management also provided a fruitful opportunity to manage various stakeholder relations through risk-based dialogues. The language of risk was often used as an interface between internal and external stakeholders in a way to signify and convey areas of concern.

As the Navigational Safety department had already established a well-defined and explicit risk management framework through its adherence and compliance with the Port Marine Safety Code, ERM served to increase legitimacy more from an external perspective. Specifically, the adoption of ERM afforded an opportunity to directly influence the level of moral legitimacy the PLA could claim. Moral legitimacy places the emphasis on the 'social goodness' rather than a direct benefit and asks: 'is the organisation doing the 'right thing' or is it acting in a manner that contradicts societal values?' (Suchman 1995). This strikes directly at the core of the societally themed mandate of keeping people safe on the river. As those working in the Navigational Safety department had already positioned themselves as the PLA's foremost experts on managing risk, the introduction of an expanded risk management programme only served to further this form of organisational legitimacy. In addition to this, the introduction of ERM also served to expand the already dominating influence and reach of the Chief Harbour Master's office. An organisation-wide required adoption of a practice that had once been the sole purview of the Navigational Safety department, meant that now everyone in the organisation would be required to become fluent in what was essentially this department's 'native tongue'.

For Marine Services, the value proposition associated with ERM adoption was one that could increase individual status within the organisation. Legitimacy for them was through the application of skill and the ability to retain autonomous decision-making processes. As they had basically rejected the entire process, Marine Service's symbolic compliance was already being tolerated by the rest of the organisation. If anything, the embracing of professional judgement as a means to inform ERM's qualitative risk assessment process only further celebrated the individual skill sets that the experts in Marine Services had prided themselves on. For example, as captured in Chapter 7, the individual status of 'the only specialised electrical engineer' in the organisation was significantly elevated through their participation in the ERM collaborative risk assessment workshops and their ability to speak to risks that no one else felt qualified to discuss. As such, symbolic and 'light-touch' approach to the ERM programme became a logical value proposition for those working seeking to further their individual standing within the department, and organisation.

8.3.3 Validating Past Practices

The third and final logic that was identified in how the organisations responded to the ERM programme was that of one premised on the idea that ERM could validate and account for past behaviours and practices. This differs from the initial theme of legitimacy in that where legitimacy

was primarily focused on gaining acknowledgement from an external party, this logic served more to confirm and defend the appropriateness of what the organisation had always been doing. In this sense, ERM, through its inherently explicit and communicative nature, could articulate that existing understandings and processes were 'measurably' benefiting the organisation and demonstrate that they had taken a suitable course of action.

The function of ERM, understood by interviewees as a means to achieving a reduction of unwanted events impacting their respective objectives, was rarely executed in a fashion that achieved its intended outcome. Alternatively, departments rationalised ERM and its ability to explicate specific relationships as a means to validate their current practices. For example, as we saw in Chapter 5, Administrative Services placed an emphasis on how their role within the PLA was to support and facilitate the achievement of the more functional or 'hands-on' departments' goals by keeping workers healthy and content with their employer. They understood themselves to be the support function of the PLA, a critical function but one that was not directly acting upon the statutorily mandated objectives. This meant for them that the risks they should concern themselves with would primarily arise from outside of their immediate and direct control. If risk management was to serve any type of challenge function for this area of the organisation, then identifying how they may have greater control of these threats than they feel they do, would be a logical place to start.

However, rather than allowing the assessment of risks to uncover any unidentified threats stemming from internal procedures or relationships, it was much more convenient to externalise threats and in doing so demonstrate how they lay outside of their direct influence. This placed the 'problem' as being attributable to something or someone outside of the PLA and alleviated any need to directly confront existing practices or rationalities. This validated the general organisational conception that the root of problems, whether they are to do with navigational safety or the efficacy of management systems, will arise from a short-coming external to the organisation. Protecting the organisation from all of these external threats was, according to the ERM programme, the correct thing to be doing.

The Navigational safety department had the most to potentially lose by the introduction of what could have been perceived as a competing system to manage risk. This area of the organisation had long-prided itself on its increasingly sophisticated and well-orchestrated means to manage risk. The almost unquestionable nature of the elaborate and hard-wired technologies and processes to uphold navigational safety meant any adoption of the ERM programme must only further reinforce the pre-existing system competence. ERM provided the opportunity to explicitly link the absence of any significant failures to the pre-existing infrastructure. Controls were validated as being competent and appropriate by virtue of their inclusion in the register. There was no discussion about potential latent or unidentified interactions that could produce an undesirable outcome generated by the tools of ERM. This lack of challenge is troubling in that in the Perrovian

sense, the types of accidents they seek to reduce are not 'normal' and would be served well by greater effort to uncover warning signals (Downer 2011; Perrow 1984).

For Marine Services, ERM provided an account of the actions of the individual employee. Continuing with the over-arching individualistic culture of the Marine Services, ERM afforded staff the ability to demonstrate the validation of individual experiential knowledge and for the need to continually increase their individual skills and competencies. Rather than ERM capturing and articulating how their past actions were seen to be valid, it was the incompatibility with paper-based audit style risk registers that highlighted how the existing approaches to managing risk were the right way to do things. Dynamic Risk Assessments was the way they had utilised risk management in the past. Hazards and the associated risks were continually monitored in real-time on the job and would be responded to accordingly. An excel spreadsheet back in the office was seen to offer little benefit to those 'swinging from rope ladders' or repair radio masts in inclement weather. These types of risks never made it on to the ERM registers as they could only be 'managed' as they happened. Rejecting the only made sense in that if they were to shift to the paper-based and accept to the new tools, it would in of itself present a challenge to how things had 'always been done'.

Overall, the adoption of ERM acted as an explicated mode of compliance in that it supplemented existing expectations to manage risk. In this regard, ERM was able to indirectly further substantiate a department's legitimacy by communicating its adherence to prior commitments, obligations and organisational arrangements. For example, ERM further substantiated the validity and efficacy of the Navigational Safety Department's Safety Management System that is required for adherence to the Port Marine Safety Code. Similarly, the Marine Services department benefited by participating the ERM programme in that it further substantiated the department's commitment to adhering to the HSE Act and associated regulations. The finance department served to gain increased legitimacy through its interaction with auditors, as did the pension fund managers. Associating themselves with ERM, regardless of proficiency or expertise, inherently increased the overall legitimacy and acceptability of the actions captured in risk assessments and registers.

8.3.4 Section Summary

In each of the above identified modes, the introduction of ERM, a conceptual model can be derived that explains how and why the PLA operationalised the practice in their specific area. Firstly, each area of the organisation sought to confirm their identities through the ERM practice. In understanding who they were, they sought to position themselves in regards to how and why the practice should pragmatically unfold in relationship to the type of work they were tasked with. In essence they asked themselves, 'Given who we believe we are, what should ERM mean to us?'. From here they moved on to ask 'What do we have to gain from adopting ERM?'. This speaks to the institutional pressure to adopt the practice in order to maintain legitimacy at a broad sector or field level, viewing the PLA in relation to other national or international counterparts. However, for

each of the groups, legitimacy was sought at a of the departmental or individual level, with only the Navigational Safety department seeking legitimacy from external audiences. Finally, the last stage or phase of this model speaks to an appropriate response that accounts for the other stages and provides a guiding logic that can begin to shape how best to go about demonstrating the practice and complying with the policy, while at the same time conserving the identity and way of working that was identified and established at the outset. Table 8-a provides an overview.

Table 8-a Reinforcing Departmental Logics Shaping ERM Adoption

Reinforcing Departmental Logics Shaping ERM Adoption	**Administrative Services**	**Navigational Safety**	**Marine Services**
Identity Alignment (present) *if this is who we are, then this is how ERM should be practiced*	*Identity: Supportive Enabler* *Response: Seamlessly position ERM into the background of existing practices*	*Identity: Community Authority* *Response: Position ERM as a means to manage risk through a hierarchy and retain power*	*Identity: Individual Expert* *Response: Reject and limit engagement with ERM*
Value Proposition (Future) *if this is who we want to be, then this is why ERM can help us achieve it*	*Legitimacy: Increase Departmental Standing* *Response: ERM can link work to other areas and elevate issues*	*Legitimacy: Increase Organisational Standing* *Response: ERM can demonstrate us doing the right thing*	*Legitimacy: Increase Individual Standing* *Response: ERM is a Mode of Compliance*
Practice Validation (past) *if this what we have been doing, then this is why it was right*	*Past Behaviour: Protect the Organisation from External Threats* *Response: Validate that risks are hard to control and influenced indirectly*	*Past Behaviour: Invest heavily in risk management infrastructure and systems* *Response: Validate existing system controls*	*Past Behaviour: Risk is managed as it happens* *Response: Validate 'Dynamic Risk Assessments' by Emphasising the incompatibility of paper-based assessments*

These logics worked together and served to conserve their established organisational identities, further the legitimacy of those established identities and finally, validate the past actions that generated those identities. Although this concept of 'organisational conservatism', originally conceived of in Chapter 2, could be applied to the introduction of any new institutionalised practice, the temporal aspects of ERM played a significant role. Specifically, the management of risk enabled three distinct modes of organising: prospective, real-time and retrospective (Hardy & Maguire 2016). It allows the 'problematising' of uncertainty to be undertaken prospectively through things like risk assessments and scenario planning activities; in real-time through the enactment of response plans or hardwired controls such as safety valves; and finally, retrospectively through the use of lessons-learned exercises or reporting mechanisms. Enabling these temporal shifts in

organising allow actors to reinforce and further entrench norms and practices through the legitimate discourse of risk enterprise risk management. Further to this, what becomes especially powerful is the fact that ERM systems are inherently focused on the achievement of *existing* organisational objectives. This makes it relatively straightforward for employees to translate all existing challenges into the language of risk and essentially reconstruct their everyday practices as ones representing risk management controls (Palermo et al., 2017). The importation of ERM did not open a debate about the appropriateness of existing goals but rather it positions ERM as a means to protect them from failure. It serves to reinforce that the goals are, and will remain, achievable as long as the employees continue to do what they have been doing.

The above begins to shed light on why an organisation that hasn't experienced a major risk event for almost three decades would see the need to adopt an ERM practice. The reform of risk management at the PLA was initially driven by the Board of Directors and their need to better understand how risks were being managed at the operational level. It wasn't as though any disturbing trends or string of near misses had called the efficacy of current risk management techniques into question. As such, why should the PLA invest further resources into a program, that through its performance, should provide adequate level of assurances to those at the executive level? Accountability, blame and impacts to reputation are the catalysts for ERM colonisation efforts. The current overhaul and updating of the ERM framework at the PLA is less about enhancing the ability to manage risks it actually has agency over but rather ERM is about managing the risks it could be blamed for. Protecting the identity and reputational capital that the PLA has been amassing over the years is no longer simply achieved by 'doing their job well'.

Yes, the need for ERM can be linked to the management frameworks ability to present auditable and justifiable decision-making trails that explicate competence. These audit trails aid in justifying the organisation's existence if it is ever brought into question by a catastrophic event on the Thames. However, despite the increased adoption of ERM by a wide range of public and private sectors, significant failures continue to happen (e.g. 2008 financial) and there is no reason that the PLA will prove to be an exception, which brings the accuracy and efficacy of ERM into question. In this regard, the implementation of ERM at the PLA offered little benefit to reforming the quantitative accuracy of the risk assessments, nor did it offer much attention to shedding light on how future failures might actually happen. Rather, ERM was about defining and limiting the managerial bounds of the risks the PLA is paying attention to.

The PLA's track record suggests that it has an ample ability to manage the safety of navigation along the 95 miles of river under its jurisdiction. However, its ability to respond to the new emerging threats of external judgement about how it is going about doing that is where ERM can now provide tangible benefit to the PLA. As much as organisations do have the ability to be brought down by catastrophic events, much less tangible threats are playing a greater role in impacting the legitimacy of an organisations existence. It is how the PLA constructs, and perhaps more importantly documents, its risk object-management relationships that is of concern to the

higher-ups in the PLA. For the PLA, the organisation has a well-established and relatively robust informal means of assessing, capturing and sharing knowledge about risks. If anything, the formal adoption of ERM poses more of a threat, than an opportunity, if it is allowed to compromise the context rich narratives that are used to disseminate critical risk information freely throughout and between the different departments. However, these narratives do little to substantiate contentious decisions that are exposed to increasing levels of external scrutiny, nor will they satisfy external review boards in the disastrous event a tragedy does ever occur again on the river. It is this balance, between formal and informal frameworks of risk management, that the PLA must achieve in order to address the broad range of risks it is now required to manage.

8.4 Chapter Summary

The primary impetus for this research stemmed from the growing acknowledgement of risk management's increasingly dynamic role within public sector organisations (Power 2004; 2007; Power et al., 2009; Huber & Rothstein 2012; Scheytt et al., 2006; Arena et al., 2010). A spectrum of organisational level responses has been noted at the field and organisational level, however little research has explored how the 'micro dynamics' associated with ERM programmes unfolds. For the PLA, the introduction of ERM did not represent any dramatic or pivotal shift in organisational logic or thinking. Risk had, for the most part, played some type of formal or informal role within the existing practices and decision-making processes. As such, it is better described as an evolutionary step in the ongoing 'colonisation' of the organisation, one which is responding to the institutional pressure to adopt a dominant risk management logic. So, in seeking to operationalise an enterprise-wide approach to risk management across the PLA, what exactly did the organisation achieve? The answer is both very little and quite a lot, depending on how you view the situation.

In regards to the literature, the above findings speak to how organisations respond to institutional pressures to adopt practices as a means to further their legitimacy and organisational standing (DiMaggio & Powell 1983; Meyer & Rowan 1977; Power 2004). A significant finding of the research speaks to how the development and adoption of institutional logics unfolded at a departmental, and at times, individual level. However, little is understood about how the practice of ERM can vary across a single organisation. Enterprise-wide or holistic approaches to risk management drive towards a standardised and repeatable practice of risk management (ISO 2009). This uniformity of practice is predicated on the notion that risks that have been subjected to a similar, if not identical, construction process can thus be compared against each other in order to prioritise the allocation of resources to the areas of most concern i.e. high risk. Although the PLA did strive to adopt a 'unified' practice of risk management, the explicit process spoke more to a need to legitimise actions of the organisation rather than assigning or distributing resources needed for efficient and effective risk control measures. This multiplicity of practice afforded the organisation the ability to deal with institutionally pluralistic operating environment and the flexibility in which to demonstrate their competence to a wide range of stakeholder expectations.

The review of the literature also examined the theory of 'risk colonization', represented by a two-stage process in which organisation first frame objects of regulation as risk in order to better respond to any associated institutional risks. However, this can result in a subsequent second stage which produces 'spiralling feedback loops' that create institutional risks and actually modify the way in which organisations respond to societal risks (Rothstein et al., 2006). The evidence from this research study supports the theory of risk colonization in that the adoption of ERM did heighten the organizational attention to institutional risks and at times reshaped existing risks that the organisation was attending to. For example, the significance of reputation risk as a 'common currency' produced an entirely new category or dimension of risk that the organisation was required to explicitly manage. Societal risk assessments could be captured as scoring relatively low and then amplified or reshaped through a second assessment which emphasised the impact to reputation if the risk was to occur i.e. media salience. There was support for the notion that this spiralling feedback mechanism only further served to reinforce the 'quantitative power' of risk assessments in that the highly subjective nature of assessing impacts to reputation were validated through somewhat arbitrary risk scoring. Although for now, the PLA sees the best way to manage these risks by ensuring societal failures don't happen, it could just be a question of time before the risks to the organisation's reputation begin to divert resources away from upholding the mandate of navigation safety.

The notion of risk objects was also explored in the literature and how a 'relational theory of risk' can help better understand how the public and organisations come to construct and frame risk issues (Boholm & Corvellec 2010; Hilgartner 1992). The relational theory of risk stresses the interpretive nature of risk and the associated socially constructed means through which people come to understand what is of value and the associated threats posed to that value. The study provided significant insight into how different areas of an organisation come to understand what should be considered to be at risk and how the pre-existing departmental cultures influenced how they constructed a risk object to be managed. As noted by Hilgartner (1992), risk objects are constructed, or deconstructed, through a process of ascribing a value to some type of object (person, place, things) and then associating some type of harm to it. Once an object and corresponding threat are identified, the resulting 'risk object' can become the focus of a managerial system that can intervene in the relationship by introducing controls. The amount of control exercised should then be in direct relationship to the amount of reduced risk that is achieved (i.e. benefit). However, as the case the of the PLA further substantiates, the ways in which these risk relationships and objects are constructed are far from objective and continues to highlight the significance of the context in which the risk object is constructed.

Overall, all of the tools and techniques both associated with the new ERM programme, and those that had been long adhered to by the more operational areas of the organisation, served mainly to legitimise the application of, and reliance on, experiential data. A recurrent theme in all three empirical chapters highlighted that the calculative aspect of the risk assessment process was

rendered somewhat irrelevant in that the numbers entered into the likelihood and consequence columns were most often based on hunches, heuristics and gut-feelings, rather than any truly quantifiable failure frequencies or statistics. The ability to override any assessment that may challenge popular opinion was made most evident in the risk assessment involving the Chief Harbour Master. In reviewing how the organisation was responding from a structural perspective and how it was using ERM to assess risk, the lack of substantive change in both instances suggest that there is little chance that the organisation changed how it responded to risks because of the ERM programme's introduction.

Research has also shown that organisations, much like the PLA, can demonstrate competing logics as the organisation is forced to respond in order to meet the expectations of a pluralist institutional field. At a macro level, institutional pluralism for the PLA can be seen to take the form of the State in its role a regulatory authority, the market in its need to facilitate international trade as well as generate a means to self-fund operations, and also the community, in the form of the competing interests of multiple stakeholders who rely on the river for prosperity and enjoyment. These institutional drivers set up an interesting dynamic in which the organisation seeks to operationalize a standardised and consistent approach to risk across the organisation and yet at the same time reconcile the practice with pre-existing employee conceptions of what it means to be the PLA.

The above discussion also highlighted the role ERM had in regards to existing organisational identities as well as its impact on organisational legitimacy. In this regard, ERM can be seen as much as an exercise in the organisation understanding who they are and why they exist, as much as it was about reducing uncertainty or avoiding future failures (Albert and Whetten 1985). Much of the research today has positioned the operationalisation of risk management as a response to increased demands for transparency or as a means to limit and mitigate possible blame (Hood 2002; 2011; Power 2007; Power et al., 2009) as well as being driven by compliance or performance (Arena et al., 2010; Mikes 2009; 2011). However, in this study the research presented an alternate view in that although practising ERM was essentially a mode of compliance with internal policies and external obligations, employees framed it as means to express what that compliance meant in relation to who they thought they were. Rather than framing ERM as a means to limit blame when things might fail, it presented an opportunity to position and communicate their identity as a trustworthy and competent authority, as was the case with Navigational Safety. Rather than seeing it as a performance enhancing mechanism, Marine Services staff used ERM as a means to communicate individual expertise. For the Administrative Services, it demonstrated their ability of providing support and enabling the functions of other areas of the organisation. Reforming ERM at the PLA was less about increasing the effectiveness of current controls or challenging the status quo but rather presented tangible benefits in the by-products of the adoption. The applied set of organisational logics demonstrate a concerted effort to shape and repurpose the functional 'means' of ERM to achieve the 'ends' of conserving existing organisational cultural arrangement and

identities. Although the significant amount of decoupling the ERM practice was subjected to across the entire organisation might suggest a minimal response was demonstrated to ERM implementation, it was the active and concerted shaping of ERM programme that enabled the PLA to articulate and legitimise its well-established organisational identities.

Chapter 9 Conclusion

9.1 Introduction

The starting point for this research study was driven by the headlong and sometimes unquestioning drive to adopt adoption of risk management by public sector organisations. ERM is purported to afford organisations improvements to compliance, assurance and enhanced decision-making, as well as increasing the efficiency and effectiveness of operations, and the ability to achieve strategic objectives (IRM 2010). It is understandable that public-sector organisations would be interested in a tool that could achieve all of this. However, these risk management frameworks have more evolved into a process seeking to capture everything as risk (i.e. controllable) rather than seeking to change the risks themselves. However, despite the significant possibility that ERM will amount to little more than a self-checking and reaffirming exercise in control validation, it continues to grow in popularity. As such, further understanding how and why organisations continue to operationalise ERM frameworks becomes extremely significant.

A review of past research suggested a lack of consensus on how ERM might actually unfold within a public-sector organisation. The managerial literature supported the notion that ERM was indeed a mechanism to increase organisational effectiveness; drawing organisational attention to the things that matter most and allocating resources accordingly. In this sense, risk was positioned an 'object to be discovered' of which the practitioners of ERM would be fully capable of identifying, assessing and evaluating. However, how people and groups perceive and understand risk had been clearly demonstrated to be influenced by a range of cognitive and cultural factors (Fischhcoff 1978; Douglas 1992; Lupton 1999). Organisations can filter risks in order to reinforce, rather than challenge ways of working and seeing the world, (Rothstein & Downer 2012). Furthermore, others noted that despite the best efforts of organisations, some failures are simply inevitable no matter how much foresight is applied (Perrow 1984; Downer 2011). In addition to this, the neo-institutional literature on organisations suggests that newly adopted managerial practices, like ERM, are often decoupled as a means to preserve an organisation's 'technical core' and achieve greater institutional legitimacy (Meyer & Rowan 1977; DiMaggio & Powell 1983). Organisations have been demonstrated to decouple 'means from ends' when it comes to implementing practices in which the outcomes are ambiguous or unclear. In this regard, ERM has long-struggled with providing an easily definable way to measure its impact, outside that of relying on the absence of failure. In acknowledging all of the above, it would appear that the ability of ERM to achieve its underlying challenge function and 'do what it says on the tin' is relatively unlikely (Huber & Rothstein 2013).

In order to investigate the issue of how public organisations respond to ERM, a case study was undertaken that focused on how different areas of the PLA would respond to the introduction of enterprise-wide approach to risk management. The PLA was an interesting organisation in that not only had it been created as means to manage the risks to navigational safety on the Thames, it had

also been mandated to manage risk through a variety of external requirements for quite some time. Health and Safety regulations and the Port Marine Safety Code were two existing coercive pressures driving the organisation's need to manage risk and complying with these expectations was something that had been taken very seriously. Apart from one significant event, the Marchioness Disaster in 1989 (which the PLA was not held accountable for), the PLA could boast a significant track record in its ability to keep the organisation, and the public it serves, free from any significant failures. However, much like so many other public organisations, the PLA and its executive board saw a pressing need operationalise an ERM framework.

Curious to understand the implications of introducing a more holistic and coordinated approach to risk management, the researcher gathered evidence of how the PLA implemented ERM from multiple sources. To gain as complete a picture as possible, three sub-organisational units were used that provided a representative sample of the major types of risks the organisation sought to manage. Data collection took the form of a review of associated ERM documentation, interviews with the staff involved with the implementation of ERM, and finally, through passive observations of employees engaging in, and discussing the management of, risk. After collecting a year's worth of empirical data, the analysis of the PLA's response to the need to implement practice both confirmed and challenged previous understandings of how a public organisation responds to ERM.

9.2 Summary of Research Findings

The following section provides a summary of the key findings of this thesis. In returning to the original research question of how and why the PLA is practicing ERM, two broad and yet interrelated contributions emerged from the study. The first speaks to the literature on how organisations are slowly being colonized by risk management practices and the production (and costs) of institutional risks associated with managing societal risk. For the PLA, it would appear that the implementation of ERM is producing a heightened attention to the institutional implications of managing the risks to navigational safety. In turn this substantiates and reinforces the need to further formalise and expand the role of ERM, supporting the notion of risk colonization (Rothstein et al. 2006). These attentions are coming at a cost to the organisation, not only from the inherent transactional costs of the time and effort associated with the additional activities required by ERM but also in the impacts to the organisation's ability to maintain a contextually accurate account of the risks it is charged with managing. Uncovering the micro-dynamics of ERM suggests that a lot of 'risk work' still transpires outside of what is captured in the 'fantasy documents' of ERM. The management of risk is so dependent on the context and is much more dynamic than the linear likelihood x consequence assessments convey. Editing down the rich verbal risk narratives that are relied upon by staff to communicate what risks to manage and how

best to managed them are being compromised by a need to register risks in computer spreadsheets. Furthermore, the repurposing of ERM to create apparent affinities of control and enhance organisational legitimacy creates an explicit audit trail that could actually raise more questions than it answers.

The second theme that emerged from the study spoke to how the PLA is absorbing and responding to the increased demands to explicate their risk management processes. Here, the adoption of ERM affords the organisation the ability to communicate and reinforce the different department's understanding of their institutional identities through the legitimising rhetoric of risk management. The departments can then use ERM as a means to position the objects of their risk management frameworks in a way that supports their current worldviews and cultural orientations. In this sense, the research methodology and the resulting empirical data sets, have contributed to the current understanding of how organisational, institutional and cultural dynamics drive and shape how ERM transpires at the employee level. The findings demonstrate that despite the clear and well-defined intent of current 'best practices' of ERM, well-intentioned organisations will decouple means from ends in order to preserve institutionalized and culturally embedded understandings of what risks should and should not be explicitly managed through ERM. The cost of shifting the intended means of ERM (i.e. risk reduction) to one that reinforces the departmental identities and cultural preferences, is that the new system could produce more risks than were being managed before ERM was implemented.

In recognising the costs and risks associated with ERM, it is fair to ask if organisations should continue to spend time and effort associated implementing ERM despite the fact that the very tool being employed could be inherently undermining the organisation's ability to respond to risk. In response to this, it is the opinion of the researcher that although ERM has the ability to increase the amount of time and effort afforded to managing risk, the costs still outweigh the net benefits. To truly reform the way in which risks are managed at the PLA, and ERM program must begin to adopt a much more reflexive turn in how it understands the implications of implementation - i.e. the risks of risk management.

Finding 1: Increased Situational Awareness

At the outset of this research, it was expected that the PLA would show little uptake of the ERM programme, in order to resist challenges to existing ways of seeing the world. The literature suggested that in a case like the PLA, the organisation would decouple the practice (Meyer & Rowan 1977), struggle with 'probability x consequence' assessments of risk (Huber & Rothstein 2013), and quite possibly experience clashes with existing organisational preferences (Meek 1988; Lupton 1999). However, as much as ERM at the PLA served as mechanism for organisational conservatism and lacked its challenge function, it was responsible for some substantive changes to

emerge. For one, it was very apparent that the introduction of ERM got everyone to start talking about risks. For those at the PLA, ERM was much more about discussing and sharing information about risks, rather than actually doing anything about it. Although it could be argued that the program was in its infancy, the lack of 'future actions' in the risk registers suggest that no significant course corrections lie ahead. However, this lack of 'response' does not mean there wasn't a positive benefit to ERM's implementation. Risk is inherently communicative in that it relies on observation and transmission of specific information relating to harm and value (Kasperson et al., 1988). It is also heavily influenced by an individual's, or group's, perspective on the relationship between the 'object at risk' and what 'risk object' is introducing the risk (Boholm & Corvellec 2010). The fact that the PLAs adoption of ERM substantially increased the discussions about these 'risk relationships', meant that new perspectives on long-standing organisational arrangements were generated.

For example, employees were starting to leverage the way in which they navigated things like discarded gym equipment occupying valuable space or keeping inexperienced river users out of dangerous river conditions by effectively banning experienced rowers from entering. These changes did not take place by introducing a specific 'risk control measure', it was through acts of discussing the risks, sharing knowledge and shifting stakeholder views on how things might be different that began to result in positive changes. It was the need to gain access into the 'locked up' experiential knowledge that the employees saw as truly valuable information, not what the risk register had articulated. In support of Holt (2004:267) risk management could begin to "structured and contested activity involving multiple stakeholders engaged in perpetual translation from within environments of operation and complexes of aims". It is as though the language and tools of risk management served more as catalyst that sparked informal information exchanges on risks rather than serving to introduce new formal controls or strategies that would require on-going monitoring and attention.

Finding 2: Risk Registers and Ownership

Another significant finding generated by the research spoke to how organisational actors considered the risks they manage as being discoverable and known for the most part, as lying outside of the organisation's walls. Actors in all areas of the organisation saw risks as something that they had to 'find', and given their reliance on experiential data, the risk registers were populated with things they had found to be true in the past. HR was adamant that lottery wins was a risk well-worth commanding space on the register; Navigational safety risks mirrored the rolling hazards list the Navigational Safety Team had long relied on; And, for the few Marine Services line items, the register reflected well-understood cause effect relationships. It could be argued that this is an accurate reflection of the things they are truly worried about and are actively working to manage.

However, the seemingly benign risk-register column of 'risk owner' introduced an interesting dimension to the risk management process. The register explicitly assigned 'ownership' to each risk it contained and in doing so, this solicited a different response from each of the sub-organisational units. For Navigational Safety, 'more is more' in that they all but dominated the risk registers, happy to own as many risks as they could. If not an identified owner, then at least the register line items spoke to how other areas were to work in the interest of the upholding navigational safety. This sent a clear message to the rest of the organisation about who was in-charge. The employees in Administrative Services responded to the ownership of risks by attributing their risks to external threats, that could be easily demonstrated as hard to influence. Cyber-attacks, flu-pandemics, and economic down-turns, all presented a series of threats that the organisations could do little to prevent. If the organisation was going to survive the impacts of these types of threats, then the key would lie in listening and respecting the advice of Administrative Services employees. And lastly, the lack of ownership demonstrated by Marine Services was unsurprising, given their expressed dislike for paper-based assessments. The 'dynamic-risk managers' of Marine Services were relatively reluctant to claim ownership of risks that had been transferred from a 'hands-on' approach to one being managed through such bureaucratic and dynamically incompatible means as an excel spreadsheet. All of this strongly suggests that assigning ownership of risks may have little impact when it comes to attributing accountability and more about diffusing or deflecting it.

Finding 3: Micro-Cultural Influences on ERM Practice

Another important finding from the research was in regards to how the practice of ERM varied across the organisation and, in particular, how different sub-organisational units responded to the 'one-size fits all framework for managing risk' way of managing risk. At the PLA, it soon became apparent that different areas of the organisation approached ERM quite differently. Beyond the universal, but in large part symbolic, exercises of filling out risk registers and attending risk assessment workshops, each area of the organisation engaged with ERM in a different style and with distinctly different motives. The sub-organisational and individual level perceptions on risk as well as their cultural preferences and world views impacted the way in which they undertook the practice of risk management.

For example, Marine Services demonstrated what cultural theory would position as an 'individualistic' world-view. This cultural orientation positioned the intrusive nature of a rule-based approach to risk management as one that could directly impact the value of an employees amassed experiential knowledge, turning not just the organisation but the individual inside out (Power 2004). However, the hydrographic arm of Marine Services saw value in ERM and how it could further facilitate contractual arrangements with clients. Again, this speaks to the entrepreneurial spirit that is associated with an individualistic cultural outlook. In contrast, ERM was understood more as an

opportunity for control by the more hierarchical and bureaucratic areas of the organisation. Navigational Safety and Administrative service saw benefit in ERM's ability to further the amount of control and influence they had in the organisation. HR and Public Affairs were quick to leverage the ability of ERM to link their work to other areas of the organisation and in turn, increase the status of their work. From yet another perspective, Navigational Safety did enjoy some of the 'black-boxing' effect that risk assessments can have through their 'advanced' practices. Decisions were either protected by their professional judgements being seen as unquestionable in light of the many years' experience employees had gain over their long careers, or through the use of software programs that few had access to. All of these micro-culture preferences had significant impacts on how each area of the organisation approach the adoption of ERM.

Finding 4: Decoupling and Symbolic Adoption

This bring us to the fourth notable finding of the research, being that of the amount of decoupling that was transpiring across the organisation. In demonstrating the process of 'organisational conservatism', the PLA adopted a set of ERM logics that could help align the practice of ERMs in relationship to existing organisational arrangements and understandings. However, unlike more traditional conceptions of organisational decoupling where actors decouple policy from practice core activities, the PLA decoupled ERM's means from its ends (Meyer & Rowan 1977; Bromley & Powell 2009). Rather than simply buffering organisational arrangements, the practice was actually repurposed as a means to further preserve and substantiate its technical core and the identities of the various sub-organisational units. Where a traditional approach to decoupling would have organisational actors 'go through the motions' of ERM, by treating risk registers and assessment workshops as 'boxes to be ticked' the staff at the PLA, for the most part, fully engaged with these activities and believed in the effectiveness. However, when faced with rather ambiguous measurements and the ability to demonstrate tangible risk reductions, employees saw other 'ends' they could achieve via the ERM practice. Public Affairs was keen to further embed themselves within the other areas of the organisation by emphasising both the significance of reputation risks, as well as mimicking the 'seamless integration' that ERM seeks to achieve in relation to how the work of Public Affairs should be viewed. Navigational Safety was quick to pick up on relational component of ERM and felt it was an excellent means to achieve further reach of their 'authority' both internally and externally. And lastly, despite their lack of enthusiasm, and perhaps more in-line with classic 'policy-practice' decoupling, Marine Services saw the value in the 'symbolic compliance' with the ERM policy and responded by throwing a couple risk up on the corporate registers.

However, all of these repurposed 'means from ends' activities, begins to highlight the troubling notion of 'fantasy documents' (Clarke 1999a). The accuracy and 'representativeness' of the risk registers went largely unchallenged. To the employees of the PLA, the data used to populate the

registers and the assessments that resulted, was the most relevant the organisation could hope for. Yet there were little explicit linkages to the effectiveness of controls due to them including everything but the kitchen sink under the 'current controls' column. This suggested more that 'apparent affinities', as Clarke (1999a) puts it, were being enacted rather than any substantive representations of cause-effect relationships being put forward. Furthermore, these fantasy documents served less to suggest those things which were uncertain were actually controlled, but rather more as a means to suggest that which was *certain* was being controlled. This amounted to creating documents that basically communicate that what employees were doing was not only the right thing to do but was working as it should. And, this brings us to the final significant finding of the research study.

Finding 5: Organisational Identities and Institutional Legitimacy

Finally, the major overarching finding of this case study draws on all of the above findings in speaking to how the sub-organisational units adopted ERM, not as means to enhance organisational efficiency or challenge previous risk conceptions, but rather as a means to confirm, protect, and communicate their organisational identities. In this regard, each sub-organisational unit saw ERM as means to express and confirm their legitimate place within the organisation and among the broader river community. The practice of ERM really came down to different groups asking themselves, and answering, 'Who am I?' and given who I am, 'how should I act?'.

For all areas of the organisation, their understanding of a legitimate identity of their sub-organisational unit, shaped how they responded to the practice. For example, 'being' Administrative Services meant that ERM was about demonstrating their ability to protect and support others. They chose risks that required that expressed how they protected the organisation from external threats or how they made life easier by keeping individuals healthy and protected from legal action. Marine Services identity shone through in their ability demonstrate the individual competence of its employees in the fact they didn't need ERM. Refuting the practice only further substantiated their skills and individual legitimacy. And lastly, Navigational Safety communicated their 'total control' over all of which the Harbour Master could survey. The adequacy of the decisions and experience of those working Navigational Safety would simply not be brought into question. ERM, and risk management in general, was something that came always came to them naturally.

This interplay between how ERM was being implemented the different organisational identities was significant when viewed in relationship to the shifting institutional pressures. As noted in the literature on port authorities, the PLA's role within the river communities it serves has evolved from one focused primarily on regulatory and landlord duties, to one of a community advocate and market entrepreneur (Verhoeven 2010). This shift in roles for the PLA introduces a level of uncertainty and anxiety in regards to who the PLA has seen itself as for such a long time.

This institutional shift was evidenced by dealing new and emerging organisational arrangements like: achieving an increased presence in the community by holding public meetings; facilitating the use of river for novel events like the London Olympics, Charity stunts, or the Queen's Jubilee; and diversifying their revenue streams by offering hydrographic services. However, as a means to reduce the uncertainty accompanying that accompanies the 'unknown' (or rather, unfamiliar), ERM afforded the PLA the ability to explicitly document and communicate how their values and actions (i.e. identity) are, and will remain, legitimate.

9.3 Practical Implications of the Research Findings

The above findings would have little use if they did not at least identify some opportunities influence the 'real world' in some positive manner. In this regard, the most glaring issue is the fact that there needs to be a way for ERM to ensure that it introduces some type challenge function. ERM should be about generating new knowledge about risks, not confirming what organisations already know. As such, what needs to be incorporated into ERM is a secondary or meta-analytical component in order to compensate for the simple fact that sophisticated risk analysis is not a skill that many organisations have readily available. Yes, risk calculations based on first-hand experiential knowledge are well-informed and can provide a locally-informed contextual account of how things have unfolded in the past. However, if the majority of data is being generate by past individual experiences, then how can begin to anticipate novel system interactions? In recognising and supporting the importance of experiential data, perhaps increasing an emphasis on scenario planning, as well as providing opportunities for employs to experience, first-hand, other areas of work within their organisation, might serve to increase overall awareness of the 'unknown' risks. There needs to be a concerted move away from 'codifying' risks to one that seeks to explore them. Exploring new futures before they exist, embracing 'real-time' risk management, and focusing on employee skill and knowledge may be better time spent than pouring over color-coded risk registers. All of the above begins to speak to the notion of 'intelligent risk management' as proposed by Power (2004). Intelligent risk management emphasises that for risk management to be effect if should: be selectively applied; emphasis learning and experimentation; and, should "question and criticise the formal risk management system itself" (Power 2004:61).

Secondly, it is suggested that the deference to experiential knowledge throughout the risk management process needs to be accounted for more fulsomely. Little, if any, of the professionalised guidance material or international standards recognises any of the pitfalls or challenges associated with ERM. However, it is as though risk perception, biases, and the application of heuristics, is nothing of concern. In the absence of an appetite to admit any short-comings of ERM within the standards material, organisations would benefit from introducing some type of challenge function during the solicitation of risk information, if for nothing more than a

'gut check'. It is understood that ERM was designed to deal with a lack of available actuarial data, yet surely the validity and reliability of the knowledge on which ERM relies must be worthy of consideration. In this sense, what becomes evident is the need for type of 'reflexive stage' to be incorporated into the ERM model, in so much as there needs to be more explicit recognition of the socially constructed nature of risk. Introducing a mechanism that supports discussions relating to how the identification and assessment of risk may have been shaped by pre-existing organisational arrangements rather than being representative of 'unquestionable expertise', could allow room for a true challenge function to be introduced. Although avoiding a theme of infinite regression (analyses of analyses of…), there must be room for some type of overt challenge function to be introduced into the process, something lies outside of the monitoring function and more focused inside the ISO 'risk assessment' stage.

Lastly, in acknowledging the communicative nature of ERM, another consideration of the practitioners of ERM is that of expanding the set of tools they rely on to capture and communicate the risks they are facing. The risk register is an auditor's dream when it comes to capturing a wide range of activities, assessing their effectiveness, attributing ownership and assigning follow-up actions. However, while acknowledging the high likelihood that paper trails may not represent fact (Power 1997), there could be more useful tools that emphasise and explore different cause-effect relationships (e.g. bow-tie risk analyses or mind-mapping exercises during risk assessment workshops). Currently, the majority of excel-based risk registers limit user inputs to relatively small 'soundbites' of risk information within the predefined cells. As such, valuable data may be excluded due to space constraints or due to column titles that do little to elicit critical thought. The problems and limits associated with all risk tools need to be explicitly recognised if risk management is to be distanced from its 'audit society' roots. There needs to be a shift from 'registering' what is known to 'constructing' what is unknown, for risk is socially constructed and ERM needs account for that.

9.4 Limitations and Future Research Opportunities

In acknowledging the limitations that can accompany a single case study, an obvious avenue for future research becomes one that addresses sample size. Collecting data from a single organisation does not lend itself to a strong generalizable case study. However, this research did leverage analytical depth by the focusing on sub-organisation units of analysis and in doing so, captured a highly nuanced account of individual responses to the ERM programme. As the intent was to explore the effects over a single organisation, future research should expand the methodology employed here to a cross-comparative multi-organisational case study.

A second theme for future research would address some of the temporal limitations of this study. For one, the PLA had been around for 100 years and as such, had some extremely ingrained cultural values and organisational practices. In fact, the PLA could almost be viewed as being an

institution in its own right, one that ERM would have little chance of infiltrating in a significant manner. However, does this hold true for a much younger organisation? The need to manage risks in a newly created regulatory agency are no different to those of an organisation with a century of service under its belt. Yet, the emerging cultures and practices associated with a recently formed organisation should surely interact differently and if so, how? Further to the element of time, is the need to understand how ERM continues to manifest as it seeks to mature and further embed within a single organisation. Soin and Huber (2013) describe a process of institutional sedimentation at a 'field level' by using the example of financial regulation 'sedimenting' itself over a period of decades through the layering of competing logics. Does a similar process transpire at the level of organisations and similar catalysts, such as scandal or failures, serve a similar role? And lastly, what does the 'end' look like for ERM within organisations? Does its role fade into the background as with so many other past 'flavours of the day', and become another rote report that is generated because it always has been, much like the taken-for-granted need for financial or annual reports that are produced each year?

In focusing on the intra-departmental and more micro dynamics of the adoption and response to the managerial practice of ERM, the findings produced insights into what is emerging to be a significant theme within the neo-institutional literature on organisational analysis, that of the role of collective identities and legitimacy. Much of the findings of this research speaks to the significance that identity and legitimacy has in how organisations interact with newly adopted institutionalised practices. So much of risk management has to do with expressing organisational values and the explicit positioning of pre-existing routines in regards to current issues and challenges. This was especially true in within the PLA, in that it undertook concerted efforts to align and validate its past in a manner that reflected their espoused identities. As such, the identity of the organisation (who it saw itself as) was seen to have a considerable impact on how it understood and responded to ERM. Each of the sub-organisational units were continuously seeking to demonstrate and confirm their organisational legitimacy, whether it was from a moral position of keeping river-users' safe, or from a cognitive standpoint of how the organisation has 'always been managing risks' and world without the PLA can't be imagined. It is in this sense that ERM afforded organisational actors that ability to engage in multiple dialogues and at the same to convey who they were and what they stood for. And yet, does the significance of identity hold similar implications for the implementation of other management systems? For instance, the 'six-sigma' world of continuous improvement or the Operational Excellence Management Systems that seek to apply auditable internal standards on 'routine' operations. Are there times when there isn't a need to align and express identity through the adopted management systems, or is this an inevitable result in that organisations will always seek to put their 'cultural stamp' on the practices they 'choose' to adopt?

Finally, there is a significant opportunity to research the role of risk perception as it transpires across different departmental settings and which warrants further exploration. There was a uniform response when it came to the reliance on professional judgement in the risk assessment process. The reliance on experiential data and the corresponding heuristics they drove, demonstrated that there was considerable room for differing interpretations of risk across a single department, let alone the entire organisation. There were also noticeable cultural underpinnings that varied across each of the departments. As such, exploring Cultural Theory's 'grid-group' conception of social risk perception across the PLA may prove insightful in understanding how standardised risk assessments are influenced. One could argue that Navigational Safety demonstrated a hierarchical cultural stance when it came understanding what constituted a risk, or the fact that Marine Services opted for a more individualistic take on their risk conceptions. Understanding how different areas of the organisation are going to approach the 'construction' of risk and the linkages risk creates, will surely provide valuable insight into how organisations might effectively navigate the practice of risk management in the future.

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Appendix A: List of Interviews

Participant ID	Departmental Area	Interview Length	Date
P1	Administrative	00:55:09	2013-08-05
P2	Administrative	00:57:05	2013-08-12
P2	Administrative	00:49:36	2014-05-02
P3	Navigational	01:12:45	2013-08-10
P3	Navigational	00:56:22	2014-02-07
P4	Operational	00:53:34	2013-08-10
P5	Administrative	00:48:43	2013-09-08
P6	Navigational	00:58:25	2013-09-14
P6	Navigational	00:38:35	2013-11-09
P7	Navigational	00:55:13	2014-01-29
P8	Administrative	01:06:53	2013-10-09
P9	Administrative	01:09:47	2013-11-14
P9	Administrative	00:49:16	2014-02-20
P10	Navigational	01:03:54	2013-12-05
P11	Navigational	00:58:43	2013-12-14
P12	Navigational	01:01:43	2013-12-21
P13	External	00:47:47	2013-12-27
P14	Operational	00:51:16	2014-01-12
P15	External	00:50:04	2014-02-23
P16	Administrative	00:59:48	2014-03-06
P17	Administrative	00:45:31	2014-03-08
P18	Navigational	01:09-54	2014-05-20
P19	Administrative	00:41:28	2014-05-20
P20	Administrative	00:50:01	2014-05-20
P21	Operational	01:02:37	2014-05-21
P22	Operational	00:56:11	2014-05-21
P23	Administrative	00:48:08	2014-05-23
P24	Operational	00:47:08	2014-05-28
P25	Navigational	01:03:11	2014-06-03
P26	Administrative	01:05:05	2014-06-04
P27	Administrative	00:49:16	2014-06-04
P28	Administrative	00:47:11	2014-06-11
P29	Administrative	00:52:32	2014-06-26
P30	Operational	00:55:48	2014-07-02
P31	Administrative	00:46:06	2014-07-03
P32	Navigational	00:48:27	2014-07-09
P33	Administrative	01:05:51	2014-07-14
P34	Operational	00:43:22	2014-07-22
P35	Operational	01:10:32	2014-08-01
P36	Navigational	01:04:34	2014-08-05
P37	Administrative	00:57:50	2014-08-08

Appendix B: Information Sheet for Participants and Consent Form

Participant Information Form

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET

Title of study: An Exploration of the Organisational Dynamics of Risk Management

We would like to invite you to participate in this postgraduate PhD research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information (contact details at the bottom of the sheet).

In the past decade, the role risk management plays in organisations continues to gain prominence. The impacts of this increased reliance on organisational-wide risk management programmes can have both positive and negative influences on an organisation. Understanding the relationship between these impacts and the components of a risk management programme is the primary objective of this research study.

The benefit of such research is focused on addressing the varied challenges associated with operationalizing explicit risk management frameworks inside organisations. It is hoped that the study's findings will assist those practicing risk management as well as those researching the context in which it takes place. The study will provide opportunities for organisations to reframe the activities, technologies and rationales that constitute the practice of risk management and foster an appreciation for the possible 'side effects' of this management practice.

Your contribution to the research will be in the form of participating in an interview, which will take no longer than 90 min. By participating, you will provide invaluable insight into the current organisational practice of risk management by responding to questions on why you (and your organisation) choose to formally or informally manage risk(s), the activities, technologies and rationales used to achieve this, and how this might influence the overall dynamic of the organisation. With your permission, interviews will be recorded and transcribed to aid analysis.

Your confidentiality is very important. No sensitive personal data will be recorded, with all research data encrypted and stored in accordance with the Data Protection Act 1998. Collected data will be given a unique identification code for analysis. Personal details, including your name, title and role within the organisation will not be identified, and any data used in the final report will appear in an anonymous form unless prior consent is given. Upon dissemination and publication of the final report raw but still anonymous data may have to be made available to other researchers for peer review purposes.

Your participation in this research project is voluntary and there is no mandatory requirement to participate. If you decide to participate, you may withdraw any information immediately without giving a reason up until August 1st 2014. Notably, in the event of producing article papers from the research for journal publication, data will be kept indefinitely to abide by the requirements of publishers and journals.

If you have any questions or require more information about this study, please contact the 'Principle Investigator' (details below). If this study has harmed you in any way, you can contact King's College London using the below details for the 'Supervisor' for further advice and information (details below).

Principal Investigator:	Phil Hendy	Supervisor:	Henry Rothstein
Postal address:	King's College London King's Building Strand, London WC2R 2LS	Postal address:	King's College London Room K7.38 King's Building Strand, London WC2R 2LS
Telephone:	UNITEDKINGDOM *07412 234411*		UNITED KINGDOM
E-mail:	philip.hendy@kcl.ac.uk	E-mail:	henry.rothstein@kcl.ac.uk

CONSENT FORM FOR PARTICIPANTS IN RESEARCH STUDIES

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Study: An Exploration of the Organisational Dynamics of Risk Management

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

Please tick

or initial

☐ I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data up until August 1st 2014.

☐ • I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the Data Protection Act 1998.

☐ • I consent to my interview being recorded.

Participant's Statement:

I _____

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed **Date**

Investigator's Statement:

I _____

Confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the participant.

Signed **Date**

Appendix C: Interview Topic Guide

Introduction

- Introduce researcher and the research.
- Explain the interview will last approximately one hour.
- Participation is optional and they can stop the interview or decline to answer specific individual questions at any time should they wish.

Confidentiality and consent

- Explain that the findings will be written up and published.
- Ask if they are comfortable with the interview being recorded
- Ask if they have any questions

1. Background on interviewee and company represented

1.1 Could you give me a little background on your role in the organisation?
1.2 How Long have you been with the Organisation?
1.3 What roles have you have had at the organisation?
1.4 What brought you to want to work at the PLA?
1.5 What are the current objectives/focus for the PLA?
1.6 What is the future direction and challenges of the organisation?

2. Establishing the Context of Risk Management

2.1 What types of risks does the PLA manage?
2.2 How did you come to know about these?
2.3 What are the major risks, which are more minor?
2.4 How have the risks changed over the years?
2.5 Who are seen as the PLA's stakeholders when it comes to managing risk?
2.6 Does the organisation have a risk appetite statement or established tolerance levels for any risks?

3. Describe the Practice of Risk Management

3.1 How does your role relate to managing risk at the PLA?
3.2 Why is risk management important to the PLA?
3.3 What is the objective behind the risk management program?
3.4 How were risks managed in the past?
3.5 How is the current approach intended to change how risks are managed?
3.6 What are the challenges you see with this change?
3.7 Who is responsible for managing risk at the PLA?
3.8 Who is held accountable for the management of risk?
3.9 Do you have any specific tools do you use to manage risk?
3.10 How are risks identified and assessed?
3.11 How are risks communicated throughout the organisation?
3.12 What do you see as the primary benefits of the program?
3.13 Is there a way of measuring how effective the program is?